

# HP-335

ROLAND PIANO DIGITAL

## SERVICE NOTES

*First Edition*  
*Issued by RJA*

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### GENERAL VIEW



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### SPECIFICATIONS

#### HP335 : Roland Digital Piano

##### <Keyboard>

- Keyboard ..... : 88 keys Hammer action mechanism
- TouchSensitivity ..... : 3 Levels
- Keyboard Mode ..... : Whole  
: Split(adjustable split point)  
: Dual  
: Pianist  
: Manual Drum/SFX

##### <Sound Source> Conforms to GM/GS

- Max.Polyphony ..... : 64 voices
- Tones ..... : 8 groups 263 variations (incl.8 drum sets, 1 SFX set)
- Temperament ..... : 7 types, selectable tonic
- Stretched Tuning ..... : 2 types
- Master Tuning ..... : 415.3 Hz ~466.2 Hz (0.1 Hz Step)
- Transpose ..... : Key Transpose (-6~+5 Half-steps)  
: Playback Transpose (-6~+5 Half-steps)
- Effects ..... : Reverb(10 levels), Chorus(10 levels)  
: Sympathetic Resonance(10 levels)

##### <Arranger>

- Music Styles ..... : 22 Pianist Styles
- Control ..... : Start/Stop  
: Intro/Ending

##### <Composer>

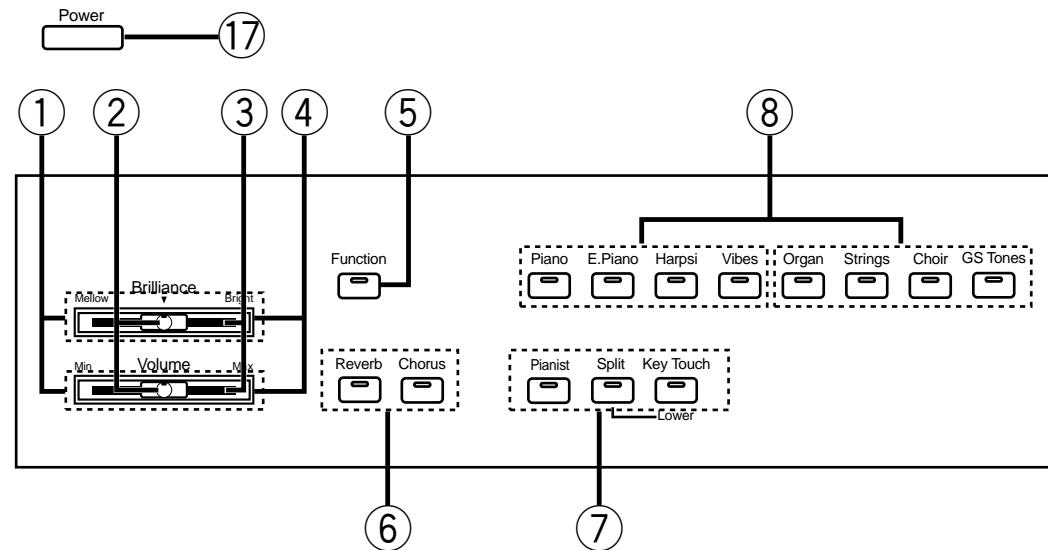
- Metronome ..... : Beat : 2/2,0/4,2/4,3/4,4/4,5/4,6/4,7/4,3/8,6/8,9/8,12/8  
: Volume:10 levels
- Tracks ..... : 3 tracks
- Song ..... : 1 song
- Note Storage ..... : Approx. 30,000 notes
- Tempo ..... : Quarter note = 20 - 250
- Resolution ..... : 120 ticks per quarter note
- Control ..... : Song Select, Play/Stop, Rec, All Song Play  
: Track Select, PlaybackBalance, CountIn

##### <Others>

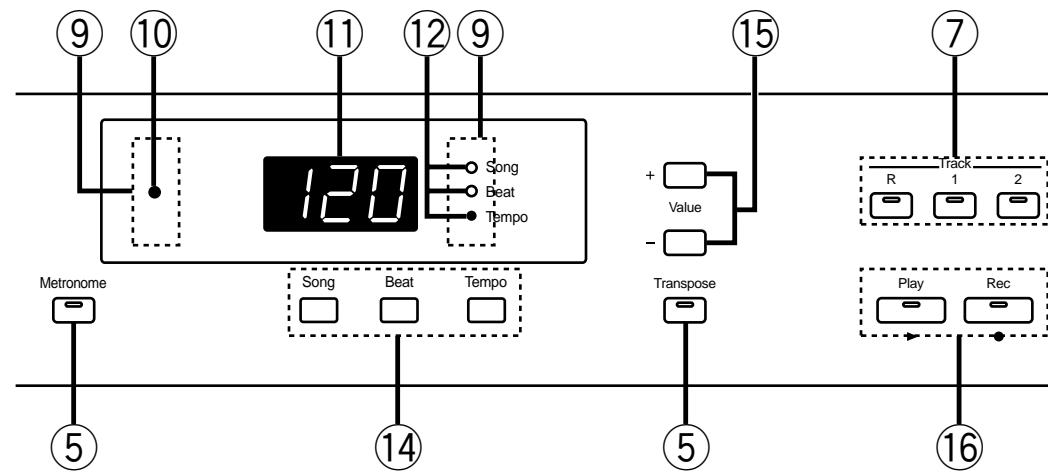
- Rated Power Output ..... : 30 W×2
- Speakers ..... : 20cm × 2
- Display ..... : Beam Indicator  
: 7-segment, 3-digit LED
- Control ..... : Volume  
: Microphone Volume, Microphone Echo  
: Brilliance
- Pedals ..... : Damper (half-pedal recognition)  
: Soft (half-pedal recognition)  
: Sostenuto (Function assignable)
- Other Functions ..... : Panel Lock
- Connectors ..... : Output jacks (Stereo/Mono)  
: Input jacks (Stereo/Mono)  
: Microphone jack (with echo)  
: Headphone jack × 2 (Stereo)  
: MIDI IN connector × 2 / MIDI OUT connector  
: Computer connector  
: Pedal Connector (8 pin DIN type)
- Power supply ..... : AC117V/AC230V/AC240V
- Power Consumption ..... : 85W(117V)/68W(230V)/68W(240V)
- Cabinet finish ..... : Simulated rosewood
- Dimensions(including Piano Stand) ..... : 1,445 mm(W) × 525 mm(D) × 892 mm(H)  
: 56-15/16(W) × 20-11/16 (D) × 35-1/8(H)
- Weights(including piano Stand) ..... : 60.9 kg / 134 lbs 5 oz
- Accessories ..... : Owner's manual English(71015401)  
: Power cord 100V : (13499219)  
117V : (13499220)  
230V : (13499221)  
240V : (13499222)  
: Euro converter plug(230V only) (00905234)

## LOCATION OF CONTROLS

### HP-335 Front panel



### HP-335 Rear panel



## EXPLODED VIEW PARTS LIST

### [PARTS LIST]

No.	Part No.	Part Name
①	01344378	TOP BOARD
②	00900478	TOP BOARD HOLDER
③	00900401	MUSIC REST
④	22325182	MR HINGE ASSY
⑤	00900278	MUSIC STOPPER
⑥	00239367	SHOULDER SCREW 1165
⑦	00900312	BLIND UPPER
⑧	71011878	PAB3 INLET 100/117V
⑨	01017134	LID RAIL STOPPER
⑩	00900534	BRACKET
⑪	00900101	SIDE PANEL UPPER L
⑫	71012023	SIDE PANEL L ASSY
⑬	01455767	END BLOCK L
⑭	01344467	SW HOLDER
⑮	71011867	PAB3 FRONT JACK BRD
⑯	13129139	AC PUSH SWITCH
⑰	22495576	A S-BUTTON LX BLK
⑱	01344389	LID BOARD
⑲	01450212	PWR TRANS 01450212 UNIVERSAL
⑳	71011856	PAB3 ANALOG PHANTOM
㉑	71013190	MAIN BOARD ASSY
㉒	00900123	SIDE PANEL UPPER R
㉓	71012034	SIDE PANEL R ASSY
㉔	01455778	END BLOCK R
㉕	71011901	IC BOARD ASSY
㉖	01349778	FULL-RANGE PD-20103A3
㉗	00900467	PWB HOLDER
㉘	71017734	BLIND ASSY
㉙	01344390	FRONT PANEL
㉚	00900289	CENTER HOLDER
㉛	00900567	PANEL HOLDER FP
㉜	01017678	LID BLIND
㉝	00900378	LID BLIND CAP

### [Screw]

No.	Part No.	Part Name
Ⓐ	40011123	BINDING TAPITITE B 4*8 BZC
Ⓑ	40011312	BINDING TAPITITE P 3*8 BZC
Ⓒ	40012178	TPA BIND 3*12 BZC
Ⓓ	40012145	TPA TRUSS 4*14 BZC
Ⓔ	*****	TRUSS TAPITITE P 4*25 ZC
Ⓕ	40012490	PAN TAPITITE P 4*10 BZC
Ⓖ	40011323	PAN TAPITITE P 3*10 BZC
Ⓗ	40232845	PAN MACHINE SCREW W/SW+PW 4*16 ZC
Ⓘ	40011056	BINDING TAPITITE B 3*6 ZCB
Ⓛ	40128512	BINDING TAPITITE B WH 4*25*20 BZC W=11
Ⓜ	40012034	TRUSS MACHINE SCREW 4*18 BZC
Ⓛ	40011101	BINDING TAPITITE B 3*8 BZC

## PANEL LAYOUT PARTS LIST

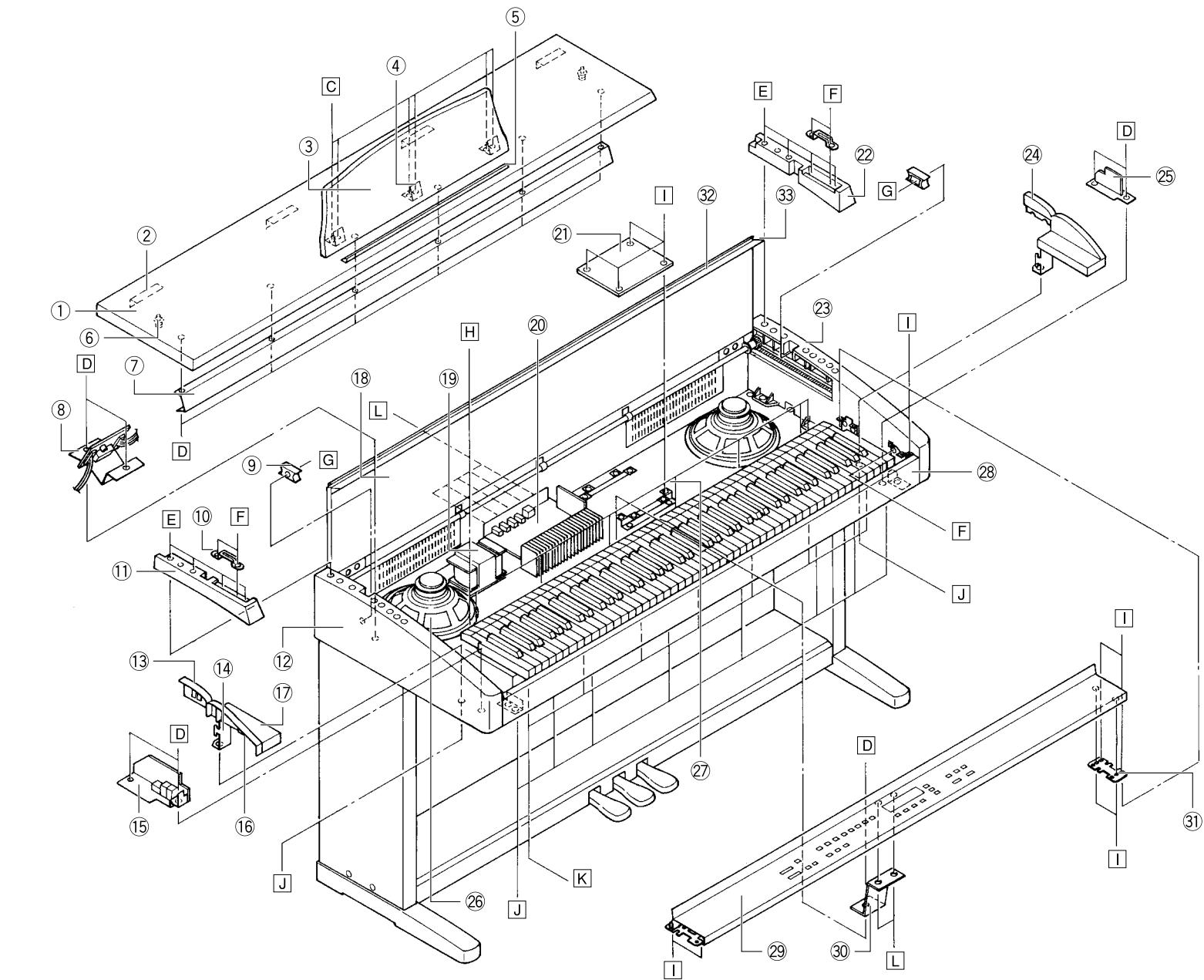
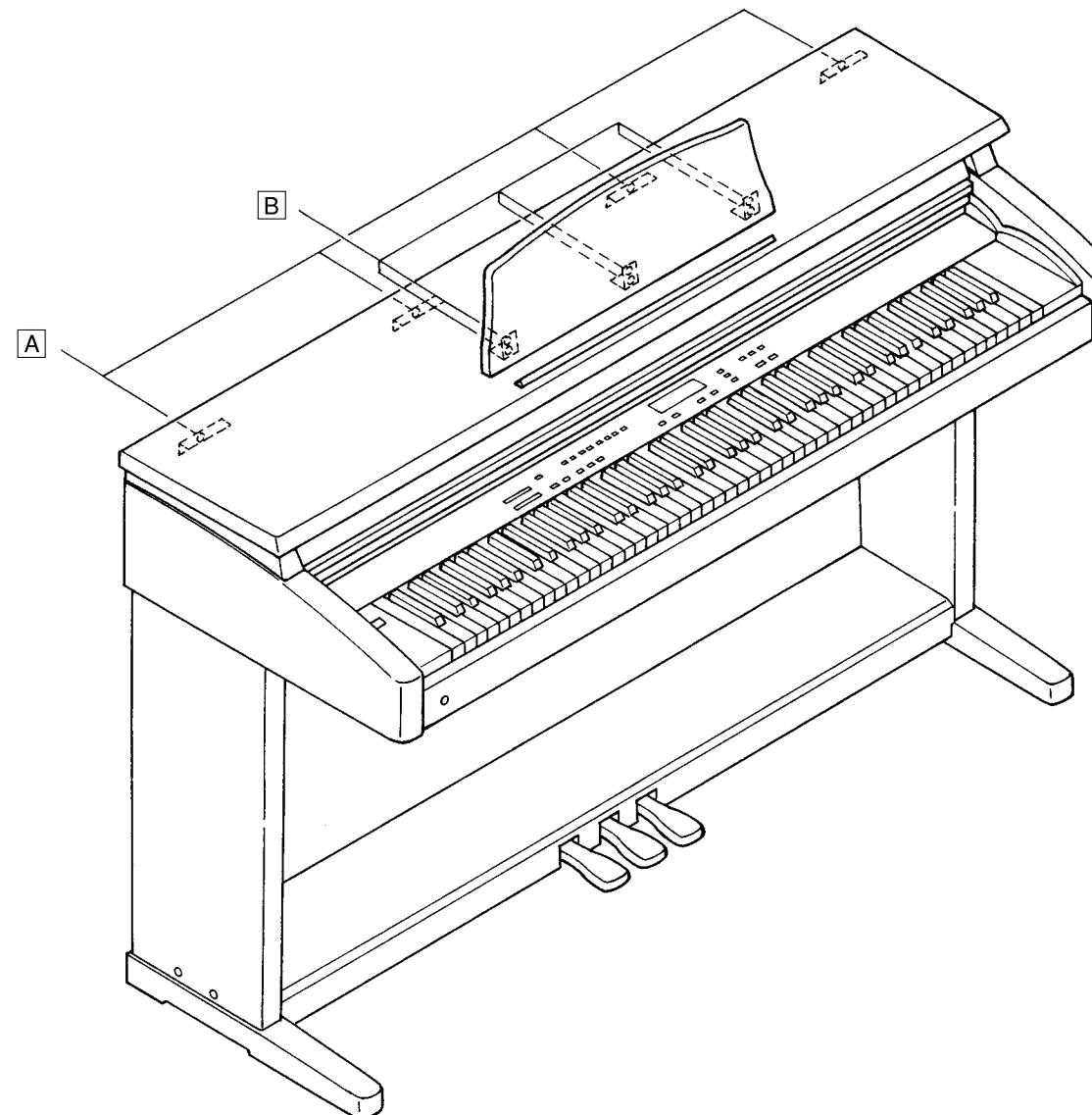
No.	Part Number	Part Name
①	00671556	SLIDE POT. EWANNKX10B14
②	22485192	I S-KNOB S BLK/LCG
③	22245194	POT DUST COVER M 1H
④	32225353	I S-ESCT SX1V BLK L=30
⑤	00900145	D S-KEYTOP SD1H BLK
⑥	15039245	LED SEL6210S TPS
⑦	00900156	D S-KEYTOP SD2H BLK
⑧	15039245	LED SEL6210S TPS
⑨	00900167	D S-KEYTOP SD3H BLK
⑩	15039245	LED SEL6210S TPS (Pianist, Split)
⑪	01121689	LED SPR-325MVWT31 (Key Touch)
⑫	00900178	D S-KEYTOP SD4H BLK
⑬	15039245	LED SEL6210S TPS
⑭	01011312	ISOLATOR LED SPONGE
⑮	01121689	LED SPR-325MVWT31
⑯	13129139	AC PUSH SWITCH SDDLB1-A-D-2 TV-5 5A/250V

\*All Tact Switches are #13169752 EVQ 213 05R TACT SWITCH.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A EXPLODED VIEW

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**PARTS LIST**

**SAFETY PRECAUTION:**  
The parts marked  $\Delta$  have safety-related characteristics.  
Use only listed parts for replacement.

**CONSIDERATIONS ON PARTS ORDERING**  
When ordering any parts listed in the parts list, please specify the following items in the order sheet.  

QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex. 10	22575241	Sharp key	C-20/50
15	2247017300	Knob (orange)	DAC-15D

  
Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

FJB	: FRONT JACK BOARD
PAB	: PAB ANALOG BOARD
MIC	: MIC BOARD
PLB	: PANEL L BOARD
PRB	: PLB PANEL R BOARD
MB	: MAIN BOARD
EB	: EQ BOARD
IB	: INLET BOARD

00900512	PANEL HOLDER R
00900467	PWB HOLDER
$\Delta$ 12339355	SWITCH COVER 721128-18
22245194	POT DUST COVER M 1H
# 01346401	ISOLATOR LED SPONGE
22145199	SHAFT STAY L
22145901	SHAFT STAY R
01011390	SHAFT CUSHION
00900567	PANEL HOLDER FP
# 01344467	SW HOLDER
00900534	BRACKET
01011312	ISOLATOR LED SPONGE

NOTE : The part marked # are new (initial parts).

**CASING**

# 01344378	TOP BOARD
00900401	MUSIC REST
22325182	MR HINGE ASSY
00900278	MUSIC STOPPER
# 01344389	LID BOARD
00900378	LID BLIND CAP
01017678	LID BLIND
00900312	BLIND UPPER
# 01344445	REAR PANEL
# 01344390	FRONT PANEL
32225353	I S-ESCT SX1V BLK L=30
00341778	KEY FELT
# 01344589	DISPLAY COVER
# 01455767	END BLOCK L
# 01455778	END BLOCK R
00900501	SIDE PLATE L
00900523	SIDE PLATE R
00121945	SPEAKER COVER
00890990	ROLAND BADGE 12 GOLD

# 71011990 BOTTOM BOARD

NOTE : BOTTOM BOARD includes the following parts.

00569156	CUSHION T1*25*1200
01011534	CUSHION

# 71012023 SIDE PANEL L ASSY

NOTE : 'SIDE PANEL L ASSY' includes the following parts.

*****	SIDE PANEL L
00900101	SIDE PANEL UPPER L

# 71012034 SIDE PANEL R ASSY

NOTE : 'SIDE PANEL R ASSY' includes the following parts.

*****	SIDE PANEL R
00900123	SIDE PANEL UPPER R

# 71017734 BLIND ASSY

NOTE : 'BLIND ASSY' includes the following parts.

*****	BLIND
01456034	SPACER BLIND D6x16.8

**CHASSIS**

01017134	LID RAIL STOPPER
00900356	LID ANGLE
00900390	LID SHAFT
22175664	LID GEAR
00900478	TOP BOARD HOLDER
00900289	CENTER HOLDER
00900490	PANEL HOLDER L

**KNOB,BUTTON**

22495576	A S-BUTTON LX BLK	POWER SWITCH
22495278	D S-KEYTOP MD2H BLK	
00900145	D S-KEYTOP SD1H BLK	
00900156	D S-KEYTOP SD2H BLK	
00900167	D S-KEYTOP SD3H BLK	
00900178	D S-KEYTOP SD4H BLK	
00900189	D S-KEYTOP SX1H BLK	
00904245	D S-KEYTOP SX3H BLK	
22485192	I S-KNOB S BLK/LCG	

**SWITCH**

13129139	SDDLBI-A-D-2 TV-5 5A/250V	AC PUSH SWITCH
13169752	EVQ 213 05R TACT SWITCH	SW1,3-10,12,13,15-17 on PLB/SW1,3-12 on PRB
13159363	SSSF124-S09N-1	SLIDE SWITCH SW301 on FJB

**JACK,SOKET**

13429911	TCS7927-28-401	DIN SOCKET	JK304 on FJB
00340223	YKF51-5031	DIN SOCKET	JK5 on PAB
13449283	HLJ7101-01-3010	JACK	JK1-4 on PAB
13449252	YKB21-5006	JACK	JK1 on MIC/JK301,302 on FJB
13429672	YKF51-5047	MIDI	JK303 on FJB
13429676	YKF51-5048	MIDI	JK6 on PAB

**SPEAKER**

01349778	PD-20103A3 FULL-RANGE	
	NOTE : For details, please refer to KEYBOARD PARTS LIST (page 10).	

**KEYBOARD ASSY**

# 71017401 PA-4A88-C2 KEYBOARD ASSY

**PCB ASSY**

# [E] 71013190 MAIN BOARD ASSY

# 71011834 PANEL R BOARD ASSY  
NOTE : PANEL R BOARD ASSY includes the following parts.

#	12169390	LED SPACER LH-36-4	on PRB
#	01450001	WIRING 14X120-P2.0-51065-51015-F	on PRB
#	01450012	WIRING 15X180-P2.0-51065-51015-F	on PRB

71013490 PANEL L BOARD ASSY

NOTE : PANEL L BOARD ASSY includes the following parts.

#	01450023	WIRING 9X350-P2.0-51065-51015-F	on PLB
#	01450034	WIRING 12X400-P2.0-51065-51015-F	on PLB
#	01450045	WIRING 8X400-P2.0-51065-51015-F	on PLB

# 71011856 PAB3 ANALOG PHANTOM

NOTE : PAB3 ANALOG PHANTOM includes the following PWBs.

*****	PAB3 EQ BOARD
*****	PAB3 ANALOG BOARD

NOTE : PAB3 ANALOG BOARD includes the following parts.

#	01346412	PAB HOLDER	on PAB(1 pcs.)
#	01346423	HEATSINK	on PAB(1 pcs.)
	22195973	POWER AMP HOLDER	on PAB(1 pcs.)
	22195975	TR HOLDER	on PAB(5 pcs.)
#	01349912	WIRING 12X130-P2.0-PH-SAN-F	on PAB(1 pcs.)
#	01349978	WIRING 7X250-P2.0-PH-SAN-F	on PAB(1 pcs.)
#	01349990	WIRING W4	on PAB(1 pcs.)

71011867 PAB3 FRONT JACK BOARD

NOTE : PAB3 FRONT JACK BOARD includes the following parts.

#	01344545	JACK HOLDER
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71011901 MIC BOARD ASSY

NOTE : MIC BOARD ASSY includes the following parts.

#	01344489	MIC HOLDER
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71011878 PAB3 INLET 100/117V

NOTE1: PAB3 INLET 100/117V includes the following parts.

23425740	AC INLET INL-8 10A/125V 2P PO
12559444	FUSE 5x20 SB 4 4A/125V
00129367	INLET HOLDER

NOTE2: Replacement INLET BOARD ""PAB3 INLET ASSY"" is for 100/117V version exclusive use.

When using ""PAB3 INLET ASSY"" for 230/240V version, be sure to make the following modifications.

1. INLET BOARD FOR 100/117V version differs from 230V version in FUSE system.

Replace fuse(F1 on INLET BOARD) to specific one.(#12559550 FUSE 5x20 S506 1.6A T1.6AL250V for 230V version) See TABLE A.

2. For safety standards, place fuse seal (#40013712 FUSE SEAL T1.6AL250V #407) at the proper place of the INLET BOARD.

The location of fuse seal is over the following printing (see fig A) of the PWB.

When necessary, please order fuse seal separately from INLET BOARD.

TABLE A

100V/117V	FUSE 5x20 SB 4 4A/125V
230V/240V	FUSE 5X20 S506 1.6A T1.6AL250V

Fig.A [ 3.15A/125V ]

## IC

01126612	DRAM TC514260DJS-60(YEL)	IC22,23 on MB
01344278	CPU HD6437034AD72F	IC3 on MB
00343823	CUSTOM IC M60205-0601FP	IC8 on MB
00897078	CUSTOM IC RA01-005 (TC170C200AF-005)	IC13 on MB
00129278	CUSTOM IC SSC1080F0B	IC1 on MB
00899812	FLASH MEM LH28F800SUT-70	IC38 on MB
# 01344245	MASK ROM LHMNPY WLAVE	IC18 on MB
15189250	BIPOLAR OP M5218AL	IC1,4 on PAB/IC5,8 on PLB
15189184	BIPOLAR OP NE5532	IC201,202 on EQ
15189189	BIPOLAR OP UPC4570HA	IC3,4 on MIC/IC6,7,8,9 on PAB
15289105	BIPOLAR OP UPC4570G2-T2	IC4,12 on MB
15259885	CMOS TC7S32F(TE85L)	IC11 on MB
00127490	CMOS TC7W08F(TE12L)	IC19 on MB
15249111	CMOS TC7WU04F(TE12L)	IC7 on MB
15289402	REGULATOR TA78L05F(TE12L)	IC6 on MB

15169515	CMOS TC74HC00AP	IC301 on FJB
15169550T0	CMOS TC74HC138AP	IC3,4 on PLB
15169556T0	CMOS TC74HC574AP	IC1 on PLB
00232567	DAC PCM69AU-1/T2	IC5 on MB
01238012	DIGITAL ECHO IC M65850P	IC2 on on MIC
15199904	IC M51953BL-600Y	IC13 on PAB/IC9 on PLB
00780645	IC M5M34051P RS422 TRANSCEIVER	IC303 on FJB
15229706S0	PHOTO COUPLER PC910X	IC10 on PAB/IC302 on FJB
# △ 01340467	POWER AMP STK401-040	IC12 on PAB
15199231	REGULATOR UPC78L05J-T	IC1 on MIC
△ 15199176	REGULATOR L78M12ML 0.5A/12V	IC5 on PAB
△ 15199177	REGULATOR L79M12ML 0.5A/-12V	IC3 on PAB
# △ 01344512	REGULATOR UPC24A05HF	IC2 on PAB
00456856	TR-ARRAY TD62593AP	IC2 on PLB
15169304H0	TTL HD74LS04P	IC11 on PAB

## CAPACITOR

# △ 01340389	BLOCK CAPACITOR ECOS1VP682BB	C39,51 on PAB
△ 01453278	CERAMIC CAPACITOR DE1307E 472M-KH	C401 on IB
# △ 01452189	CERAMIC CAPACITOR ECKDBE472ZF	C5,44 on PAB
# △ 13639144M0	CHEMICAL CAPACITOR ECA1CM682	C22 on PAB

## TRANSISTOR

00898201	TRANSISTOR RN2421(TE85L)	Q1 on MB
15119132	TRANSISTOR 2SA1015-GR(TPE2)	Q3,4,10,15 on PAB
15119615	TRANSISTOR 2SB647CTZ	Q17 on PAB
15129151	TRANSISTOR 2SC1815-GR(TPE2)	Q2,5,13,18,19 on PAB
15129152	TRANSISTOR 2SC2878-A(TPE2)	Q1,8 on PAB
15129623	TRANSISTOR 2SD667CTZ	Q16 on PAB
15139124	TRANSISTOR 2SK363-GR(TPE2)	Q6,7,11,12 on PAB
15129168	TRANSISTOR DTC124ESATP	Q22,21 on PAB
15119163	TRANSISTOR RN2227(TPE4)	Q14,20,23 on PAB/Q1-3 on PLB/Q301 on FJB/Q1-5 on PRB

## DIODE

△ 15039176	BRIDGE DIODE D3SBA20 4A/200V	D1,15 on PAB
01121323	ARRAY DIODE DA204U T106	D2-4 on MB
△ 15039159T0	RECTIFIER DIODE SS688G(TPA3)	D3,4,9,11-14,19 on PAB
15019126	SWITCING DIODE ISS133 T-77	D5-8,12,18,22-24 on PAB/D1,4-13,15-17,20,21 on PLB
15019126	SWITCING DIODE ISS133 T-77	D1-4 on MIC/D302 on FJB/D1-12 on PRB
15019685	ZENER DIODE MTZJ T-77 27C	D303-308 on FJB
15019444	ZENER DIODE MTZJ T-77 9.1B	D17,20,21 on PAB

## OPTICAL DEVICE

01121689	LED SPR-325MVWT31	LED17 on PLB / LED2 on PRB
15039245	LED SEL6210S TP5	LED1,4-13,15,16 on PLB/LED1,7-15 on PRB
# 01345445	LED L-1384AD/1ID	D301 on FJB
00239767	LED LB-603VF	LED6 on PRB

## RESISTOR

00126112	R ARRAY EXBV8V101JV	RA2,3,5,19,30-32,38-40 on MB
01013578	R-ARRAY EXBV8V470JV	RA24-27 on MB
1539965	R-ARRAY RCE9A103JAG7A	RA1,4,6-12,28 on MB
15409113	R-ARRAY EXBV8V103JV	RA13-18,20-23,34,35 on MB
# 01014278	CARBON RESISTOR ERDSS1VJ331T	R1,2 on PAB

## POTENTIOMETER

00671556	30M/M SLIDE POT. EWANNKX10B14(10KBX2)	VR1,2 on PLB
# 01348189	12M/M ROTARY POT. EVJ05HEB1B14	VR1,2 on on MIC

## CRYSTAL

|
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|  |

RELAY		
00899245	RELAY G5Z-2A DC12V/5A	RL1 on PAB
FILTER		
△ 00452034	FERRITE-BEAD BK2125HM102-T	L1-21 on MB
△ 12449380	FERRITE-BEAD EXC ELDR25V	L301-311 on FJB
FUSE,FUSE HOLDER		
△ 12559550	FUSE 5X20 S506 1.6A T1.6AL250V	F1 on IB
△ 12559444	FUSE 5X20 SB 4 4A/125V	F5 on PAB/F1 on IB
△ 12559445	FUSE 5X20 SB 5 5A/125V	F3,4 on PAB
△ 12189823	FUSE HOLDER CNT47-0003A	FH1-8 on PAB/FH401,402 on IB
CONNECTOR		
# 01344578	10JQ-ST	CN201 on EQ
13369928	53253-0610	CN11 on PAB/CN1 on MIC
13369930	53253-0810	CN13 on PAB
13369931	53253-0910	CN7 on MB
13369934	53253-1210	CN6 on MB
13369936	53253-1410	CN6 on PLB
13369937	53253-1510	CN5 on PLB
# 01344567	B10B-XH-A	CN15 on PAB
13369564	B12B-PH-K-S JST	CN11 on MB
△ 13369898	B2P3-VH 7A/250V	CN402 on IB
△ 13369585	B3P5-VH 7A/250V	CN402 on IB
13369567	B4B-PH-K-S JST	CN4 on PAB
△ 13369981	B5P-VH 7A/250V	CN2 on PAB
13369503	B7B-PH-K-S JST	CN10 on MB
13369504	B8B-PH-K-S JST	CN1 on PAB/CN301 on FJB
△ 13369890	B8P-VH 7A/250V	CN9 on PAB
13369516	B9B-PH-K-S JST	CN9 on MB/CN302 on FJB
13379151	FFC IL-FPC-14ST-N	CN4 on MB
13379152	FFC IL-FPC-16ST-N	CN3 on MB
12199584	GROUNDING TERMINAL M1698	TER3,4 on PAB
# 01347923	GROUNDING TERMINAL MEP1866-A	TER1,2 on PAB

WIRING,CABLE		
00347201	FUJI CARD 14X180-A6.0BBR-P1.25-HBL10-S	
00347234	FUJI CARD 16X180-A6.0BBR-P1.25-HBL10-S	
# 01450101	WIRING W1	
# 01450090	WIRING W2	
# 01450089	WIRING W3	
# 01450056	WIRING 6X1050-P2.0-51065-51065-F	
# 01450078	WIRING 8X800-P2.0-PH-PH-F	
# 01450067	WIRING 9X1050-P2.0-PH-PH-F-S	

TRANSFORMER		
# △ 01450212	POWER TRANSFORMER	UNIVERSAL

AC INLET		
△ 23425740	INL-8 10A/125V 2P PO	JK401 on IB

SCREW		
40011112	BINDING TAPITTE B 3×10 BZC	
40012256	BINDING TAPITTE B 3×10 ZC	
40011056	BINDING TAPITTE B 3×6 ZC	
40011067	BINDING TAPITTE B 3×8 ZC	
40011267	BINDING TAPITTE P 3×6 ZC	
40012534	BINDING TAPITTE S 3×6 BZC	
22285342	CONNECTING PIN	
22150756	JACK NUT 2	
40011490	PAN MACHINE SCREW W/SW M3×6 BZC	
40012890	PAN MACHINE SCREW W/SW+PW M3×16 ZC	
40012901	PAN MACHINE SCREW W/SW+PW M3×20 ZC	
40012867	PAN MACHINE SCREW W/SW+PW M3×8 ZC	
40231090	PAN TAPPING A 6×12 ZC	
40011312	PAN TAPITTE P3×8 BZC	
40011956	PLAIN WASHER 3×10×0.8 ZC	

00239367	SHOULDER SCREW 1165
40011712	WOOD ANCHOR NUT B M4×11.5 ZC
40011723	WOOD ANCHOR NUT B M5×12 ZC
40012634	WOOD ANCHOR NUT B M8×13.5 ZC
40011123	BINDING TAPITTE B 4×8 BZC
40012178	TPA BIND 3×12 BZC
40012145	TPA TRUSS 4×14 BZC
40012490	PAN TAPITTE P 4×10 BZC
40011323	PAN TAPITTE P 3×10 BZC
40232845	PAN MACHINE SCREW W/SW+PW 4×16 ZC
40128512	BINDING TAPITTE B WH 4×25×20 BZC W=11
40012034	TRUSS MACHINE SCREW 4×18 BZC
40011101	BINDING TAPITTE B 3×8 BZC

#### PACKING CASE

# 01344601	PACKING CASE	117/230/240V ONLY
# 01344590	PACKING CASE (FOR JAPAN)	100V ONLY
00908112	PAD L	
00908123	PAD R	
22675517	PACKING SHEET	

#### MISCELLANEOUS

△ 40013712	FUSE SEAL T1.6AL250V #407
△ 40017089	CAUTION SEAL CSA
△ 40124690	CAUTION SEAL FUSE

#### ACCESSORIES

# 71015401	OWNER'S MANUAL ENGLISH
# 71011790	OWNER'S MANUAL JAPANESE
△ 13499219	AC CORD SET 100V DC-382-J01 VFF2P
△ 13499220	AC CORD SET 120V UC-713-J01 SJT2P18AWG60
△ 13499221	AC CORD SET 230V EC-511-E07 H03VVH2-F 2P
△ 13499222	AC CORD SET 240VA SC-078-J02 ES206-75HMA
△ 00905234	EURO CONVERTER PLUG ECP01-5A
40239434	PIANIST TEMPLATE JAPANESE
	100V version only

# STAND PARTS LIST (KS-305)

01348789 REAR BOARD  
71016990 SIDE BOARD ASSY R  
NOTE : SIDE BOARD ASSY R includes the following parts.

\*\*\*\*\* SIDE BOARD R  
22125675 ANGLE  
01348812 TOE BLOCK  
22205518 JOINT HOLDER R

71017001 SIDE BOARD ASSY L  
NOTE : SIDE BOARD ASSY L includes the following parts.

\*\*\*\*\* SIDE BOARD L  
22125675 ANGLE  
01348812 TOE BLOCK  
22205517 JOINT HOLDER L

71128167 PEDAL BOARD ASSY  
NOTE : PEDAL BOARD ASSY includes the following parts.

22245308 PEDAL BOARD FELT  
40011712 WOOD ANCHOR NUT M4\*11.5 ZC  
40235989 WOOD ANCHOR NUT M6\*15.5 ZC

71019823 PEDAL UNIT

NOTE : PEDAL UNIT includes the following parts.

71018601 CONNECT CODE  
NOTE : CONNECT CODE includes the following parts.

15229728 PHOTO INTERRUPTER  
15119112 2SA1015Y TRANSISTOR  
13299199 EVND8AA03B13 TRIMMER  
00907045 PEDAL CABLE  
00904190 PEDAL CHASSIS  
00908023 FELT L  
00904223 COILED SPRING  
00908034 6x35mm JOINT BOLT  
00677978 6x12mm JOINT NUT  
22285396 ADJUST BOLT  
40011278 3x8mm BINDING HEAD P-TITE FeBC  
40011334 3x12mm BINDING HEAD P-TIGHT Fe BZC  
71018623 PEDAL CENTER ASSY

NOTE : PEDAL CENTER ASSY includes the following parts.

\*\*\*\*\* PEDAL CENTER  
01451667 FELT

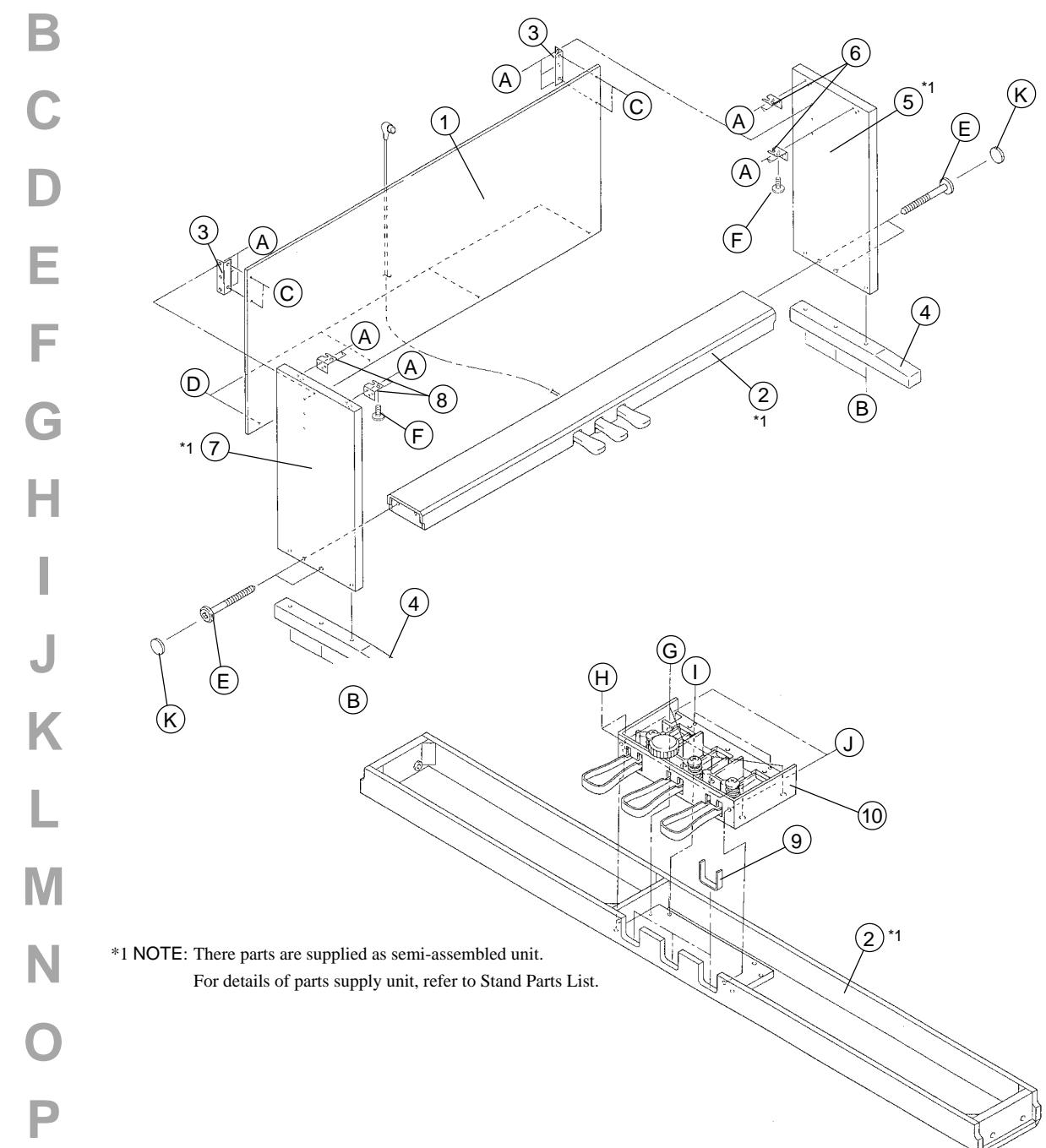
70677445 SCREW SET  
NOTE : SCREW SET includes the following parts.

40127701 4x16mm PAN WASHER HEAD C-TITE Fe BZC(x4)  
40010689 4x25mm TRUSS HEAD TAPPING A1 Fe BZC(x4)  
40233856 6x70mm JBA-0109M JOINT BOLT Fe ZC (x4)  
40010589 5x20mm TRUSS HEAD FeBZC (x2)  
40233867 JOINT BOLT CAP BLACK (x4)

40010678 4x20mm TRUSS HEAD TAPPING A1 Fe BZC  
40010701 4x35mm TRUSS HEAD TAPPING A1 Fe BZC  
40012123 4x25mm TRUSS HEAD TAPPING A1 Fe ZC  
40012923 4x25mm DOUBLE SEMS Fe ZC  
40011323 3x10mm BINDING HEAD P-TITE Fe BZC  
40011556 3.1x10mm ROUND WOOD ZC  
40238701 LEAFLET  
01348934 KS-305 PACKING CASE for 117V, 230V, 240V Version  
01348790 KS-305D PACKING CASE for 100V Version  
NOTE : The following parts are accessories for KS-305D (100V version).

00898189 HEAD PHONE RH-30  
01127245 STOOL TYPE D

## A 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 KS-305 STAND EXPLODED VIEW (KS-305)



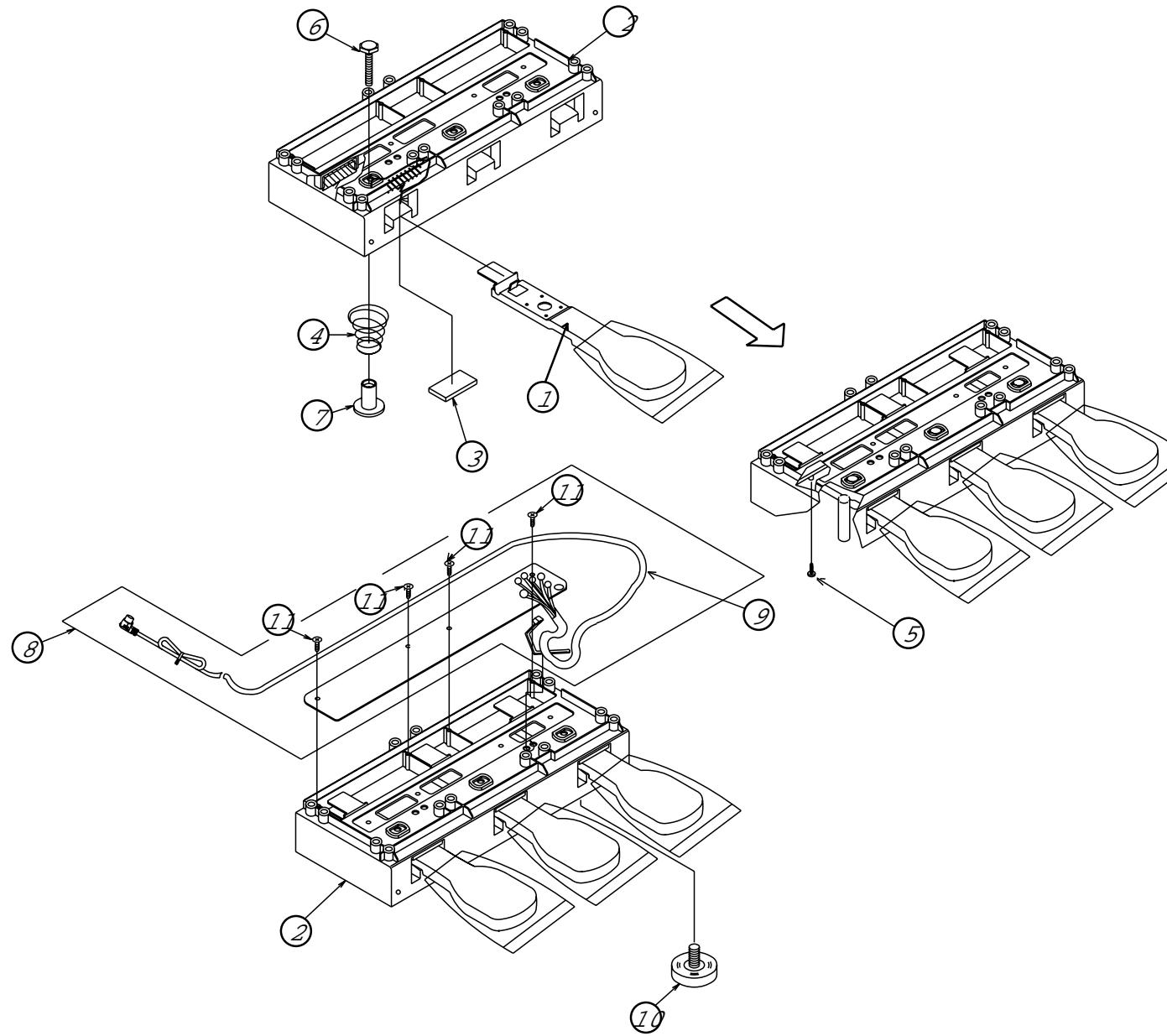
\*1 NOTE: There parts are supplied as semi-assembled unit.  
For details of parts supply unit, refer to Stand Parts List.

## Q STAND EXPLODED VIEW PARTS LIST

R	No.	Part No.	Description	R	No.	Part No.	Description
①	01348789	REAR BOARD	Ⓐ 40010678 4x20mm Truss Head Tapping A1 Fe BZC				
②	71128167	PEDAL BOARD ASSY	Ⓑ 40010701 4x35mm Truss Head Tapping A1 Fe BZC				
③	22125675	ANGLE	Ⓒ 40127701 4x16mm Pan Washer Head C-tight Fe BZC				
④	01348812	TOE BLOCK	Ⓓ 40010689 4x25mm Truss Head Tapping A1 Fe BZC				
⑤	71016990	SIDE BOARD ASSY R	Ⓔ 40233856 6x70mm JBA-0109M Joint Bolt Fe ZC				
⑥	22205518	JOINT HOLDER R	Ⓕ 40010589 5x20mm Truss Head Tapping A1 Fe BZC				
⑦	71017001	SIDE BOARD ASSY L	Ⓖ 40012123 4x25mm Truss Head Tapping A1 Fe BZC				
⑧	22205517	JOINT HOLDER L	Ⓗ 40012923 4x25mm Truss Head Tapping A1 Fe BZC				
⑨	22245308	PEDAL BOARD FELT	Ⓘ 40011323 3x10mm Binding Head P-tight Fe BZC				
⑩	71019823	PEDAL UNIT	Ⓙ 40011556 3.1 x 10mm Round Wood ZC				
			Ⓚ 40233867 Joint Bolt Cap Black				

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

## A PEDAL UNIT EXPLODED VIEW



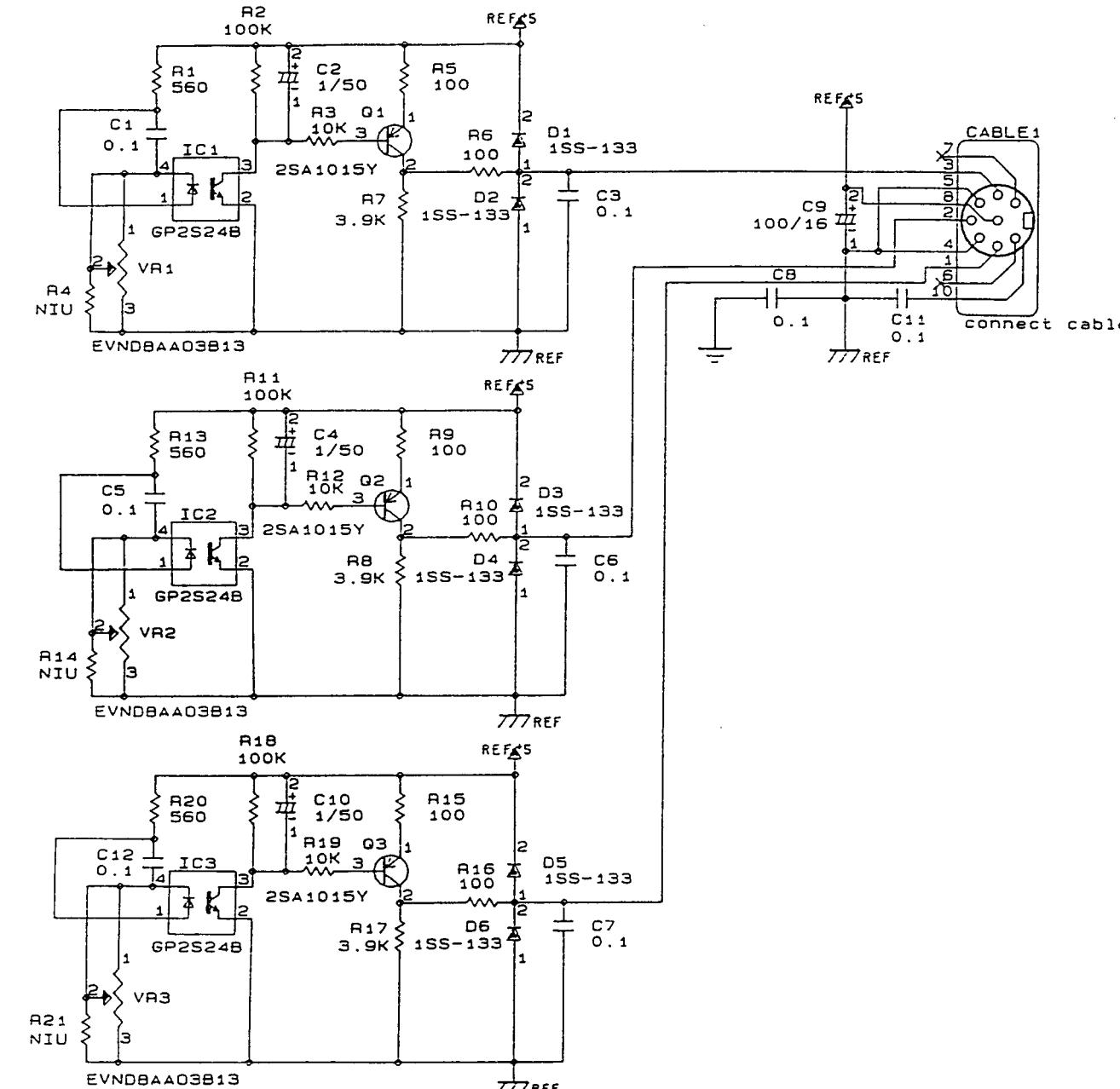
## PARTS LIST

No.	Parts No.	Description
①	71018623	PEDAL CENTER ASSY
②	00904190	PEDAL CHASSIS
③	00908023	FELT L
④	00904223	COILED SPRING
⑤	40011334	3x12mm Binding Head P-TITE Fe BZC
⑥	00908034	6x35mm JOINT BOLT
⑦	00677978	6x12mm JOINT NUT
⑧	71018601	CONNECT CORD
⑨	00907045	PEDAL CABLE
⑩	22285396	ADJUST BOLT
⑪	40011278	3x8mm Binding Head P-TITE Fe ZC

## CONNECT BOARD PARTS LIST

15229728	GP2S24B	PHOTO INTERRUPTER
15119112	2SA1015Y	TRANSISTOR
13299199	EVND8AA03B13	TRIMMER

## CONNECT BOARD CIRCUIT DIAGRAM



## STAND ASSEMBLY (KS-305)

Make sure that another person is on hand to help with the assembly and setup.

To move the piano, lift it carefully—all the while keeping it level. Be very careful, when you assemble and move the piano, to make sure that you do not drop it on your hands or feet.

### ●Part Check

Before you begin assembling the stand, check that all the parts were supplied. You will also need to have a Phillips screwdriver.

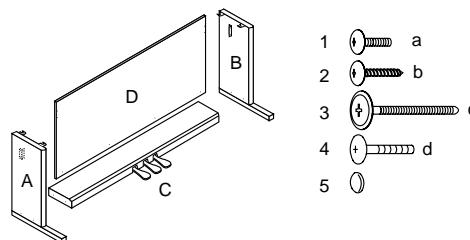
A : Side Board ( left ) 1 : Screw a ( 4 × 16 mm ) × 4

B : Side Board ( right ) 2 : Screw b ( 4 × 25 mm ) × 4

C : Pedal Board 3 : Screw c ( M6 × 70 mm ) × 4

D : Rear Board 4 : Screw d ( M5 × 20 mm ) × 2

5 : Cap × 4



### ●Assembly Procedure

\* Fasten each screw tightly, then place the stand in a stable and horizontal place.

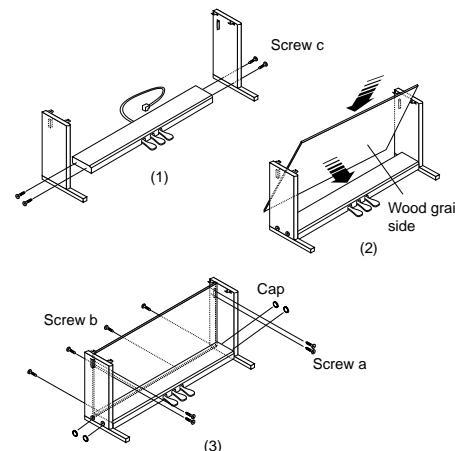
\* Do not allow the pedal cord or power cable to get twisted or pinched while assembling the stand.

### 1. Stand Assembly

(1) Attach the side boards for the right and left sides to the pedal board (so that the metal parts face inside) using screws "c" (M6 × 70 mm).

(2) Place the rear board as shown below, with the wood grain side facing inside.

(3) Attach the rear board to the metal parts on the side boards from the front using screws "a" (4 × 16 mm). For clamping the rear board, press each upper portion of both side boards. Then, fasten it to the pedal board from the back using screws "b" (4 × 25 mm) and attach the caps on screw "c."

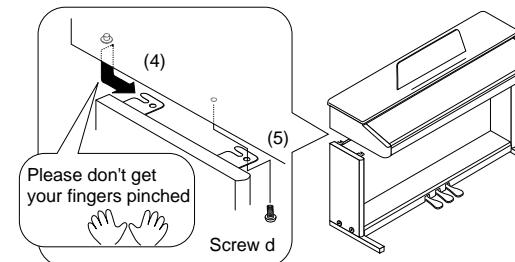


\* At first, assemble the entire stand in a temporary fashion, without really tightening the screws. Then, after checking the overall alignment of the boards (and gently shifting certain parts where necessary), go around and tightly fasten each of the screws.

### 2. Installing the Piano on the Stand

(4) Align the protruding screws (one each at right and left) on the bottom of the piano with the openings in the metal fittings on the side board, then slide the piano forward until the screws are held in place.

(5) Fasten the piano to the stand with the screw "d" (M5 X 20 mm) (one each for the right and left).

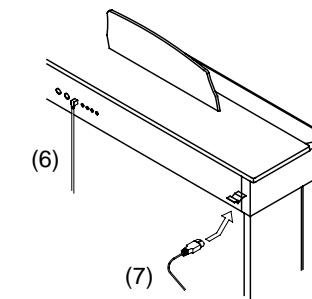


\* When handling the piano, firmly grasp it at the front and back. Be careful, so you do not get your fingers pinched.

### 3. Connecting the Pedal and Power Cords

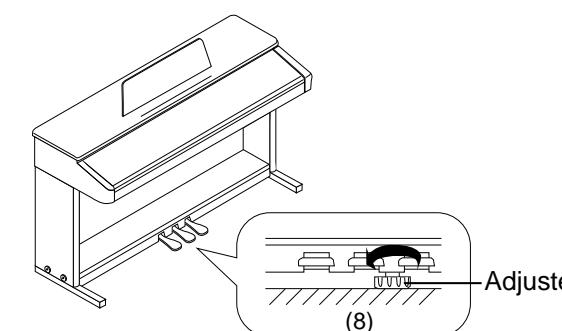
(6) Connect the pedal cord to the Pedal jack on the rear of the piano.

(7) Connect the power cord to the power inlet on the piano, then plug the other end into a wall socket.



### 4. Adjusting the Adjuster

(8) Lower the adjuster at the bottom of the pedal board (by rotating it), so that the pedal board touches the floor. If you have the piano placed on a carpet, lower it until it pushes into the carpet.



### When Moving the Piano

Disconnect the power cord and raise the stand's adjuster. Then lift the piano while keeping it level, and move it with care, so that you do not drop it on your feet, or get your hands caught.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

## A KEYBOARD PARTS LIST

HP-335/535/245/555G-KR-575/575P  
PA-4A88-C2 KEYBOARD ASSY PARTS LIST  
71017401

No.	PARTS No.	PARTS NAME	Qty.
1	00455501	PA-4A N-KEY A	7 / 1
	00455512	PA-4A N-KEY B	8 / 1
	00455534	PA-4A N-KEY C	7 / 1
	00455545	PA-4A N-KEY D	7 / 1
	00455556	PA-4A N-KEY E	7 / 1
	00455578	PA-4A N-KEY F	7 / 1
	00455589	PA-4A N-KEY G	7 / 1
	00458689	PA-4A N-KEY A'	1 / 1
2	00458690	PA-4A N-KEY C'	1 / 1
	32575291	PA-4 S-KEY	36 / 1
	00458178	PA-4A N-KEY HAMMER	52 / 1
	00458189	PA-4A S-KEY HAMMER	36 / 1
	*****	PA-4A CHASSIS 88P-CK ASSY	1 / 1
	00453401	PA-4A CHASSIS 88P	1 / 1
	01019690	PA-4A SUB CHASSIS A	7 / 1
	01019701	PA-4A SUB CHASSIS B	1 / 1
3	22155784	PA-4 GUIDE BUSHING A	52 / 1
	00019912	PA-4 GUIDE BUSHING S-KEY	36 / 1
	22265498	PA-4 CUSHION A	2 / 1
	00452145	PA-4 CUSHION U ZUREN DBK-2	1 / 1
	00564867	PA-4A CUSHION I	1 / 1
	01237089	PA-4A CUSHION RZA	1 / 1
	00561890	PA-4A CHANNEL	8 / 1
	40011067	BINDING TAPPIE B 3X8 ZC	16 / 1
4	40012256	BINDING TAPPIE B 3X10 ZC	30 / 1
	70894556	PA-4A PWB LOW ASSY	1 / 1
	70894567	PA-4A PWB MID ASSY	1 / 1
	70894578	PA-4A PWB HI ASSY	1 / 1
	22185247	PA-4 RUBBER SWITCH 12P	8 / 1
	23475965	FUJI CARD 14X70-A5.0BB-P1.25-HBL8	1 / 1
	23475342	FUJI CARD 8X60-A5.0BB-P1.25-H8	1 / 1
	40011267	BINDING TAPPIE P 3X6 ZC	10 / 1
17	00347201	FUJI CARD 14X180-A6.0BBR-P1.25-HBL10-S	1 / 1
	00347234	FUJI CARD 16X180-A6.0BBR-P1.25-HBL10-S	1 / 1
	70894556	PA-4A PWB LOW ASSY	1 / 1
	70894567	PA-4A PWB MID ASSY	1 / 1
	70894578	PA-4A PWB HI ASSY	1 / 1
18	22185247	PA-4 RUBBER SWITCH 12P	8 / 1
	23475965	FUJI CARD 14X70-A5.0BB-P1.25-HBL8	1 / 1
	23475342	FUJI CARD 8X60-A5.0BB-P1.25-H8	1 / 1
	40011267	BINDING TAPPIE P 3X6 ZC	10 / 1
	00347201	FUJI CARD 14X180-A6.0BBR-P1.25-HBL10-S	1 / 1
	00347234	FUJI CARD 16X180-A6.0BBR-P1.25-HBL10-S	1 / 1

Item 18 marked \* is included in each unit of item 17.

## KEYBOARD DISASSEMBLY

### Removing PA-4A key

While holding the front end of the key, insert the tip of long-nose pliers into the U-groove on the shaft side(shaded area in Fig.1) and hold down the key in the direction of arrow A.

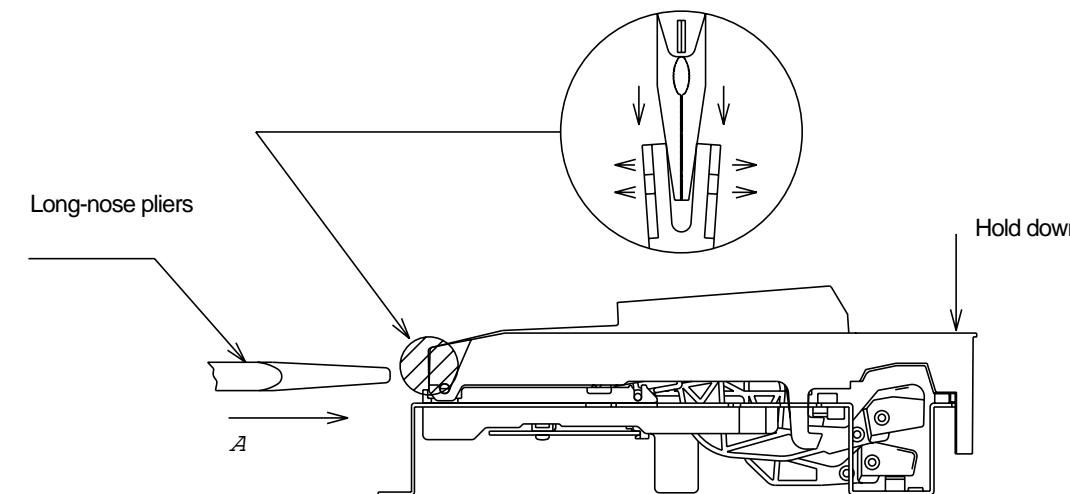


Fig.1

### Installing the PA-4 key

While placing the front inner wall of the key against the guide, pass the foot through the hole of the chassis, as shown in Fig.2. Then press the dotted area of the key in the direction of arrow.

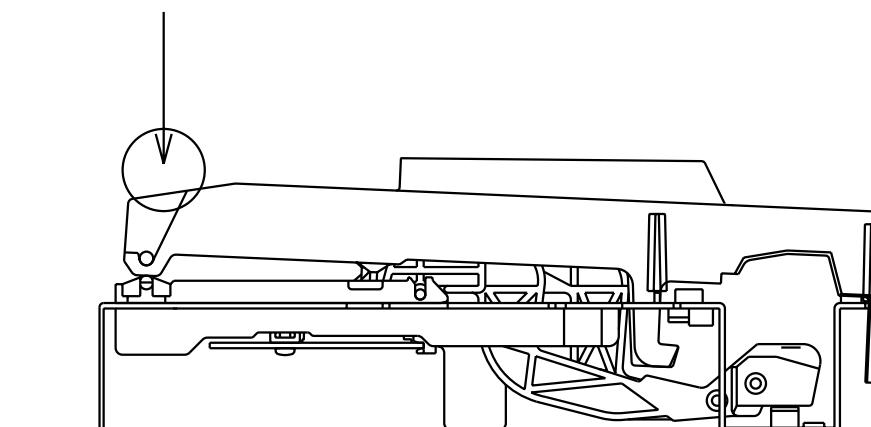
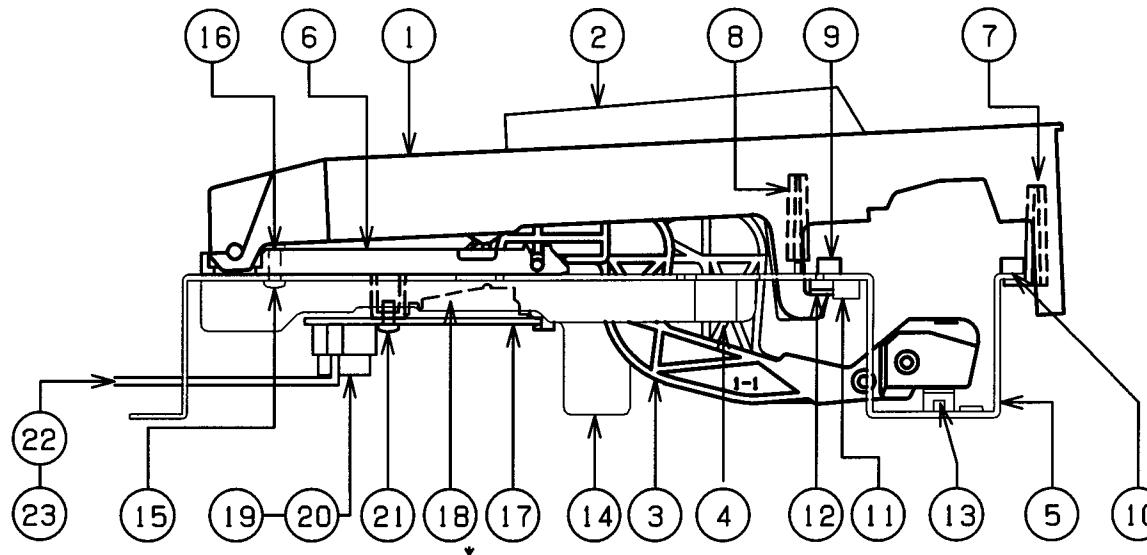


Fig.2



### Installing the PA-4A board

As shown in Fig.3, place the board against the hook part a of the sub-shassis, and screw the board into the sub-shassis.

Screw in order, from the round hole(positioning hole) on the connector side.

Be sure to screw manually. (Care should be taken to avoid screw damage.)

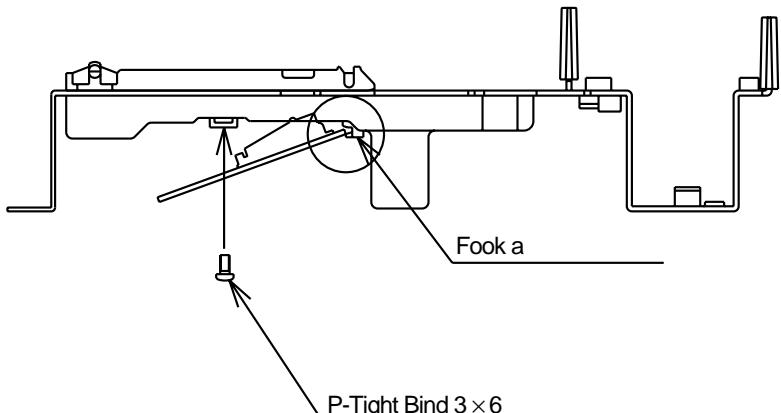


Fig.3

### Greasing points

After the key or hammer has been replaced, the specified grease must be applied to the following 4 points as shown in Fig.4.

Fig.4

1. Froir GP-1RS....gray (PNo. 17049544)
  - (a) Key and hammer bearing section
  - (b) Key and hammer joint section (actuator section)
2. Froir G-336A....white (PNo. 17049543)
  - (a) Side of guide bushing for white key and black key

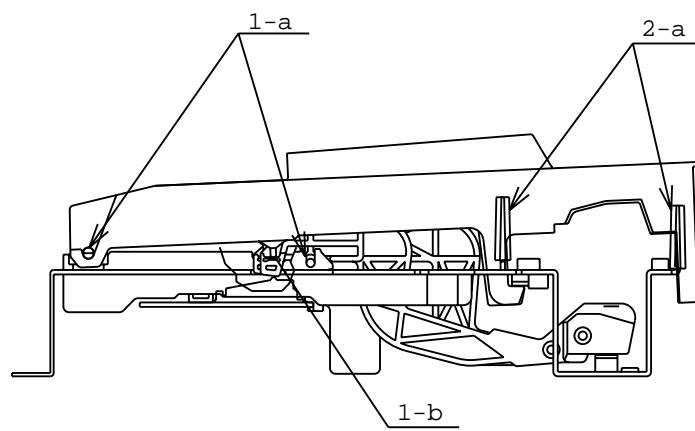
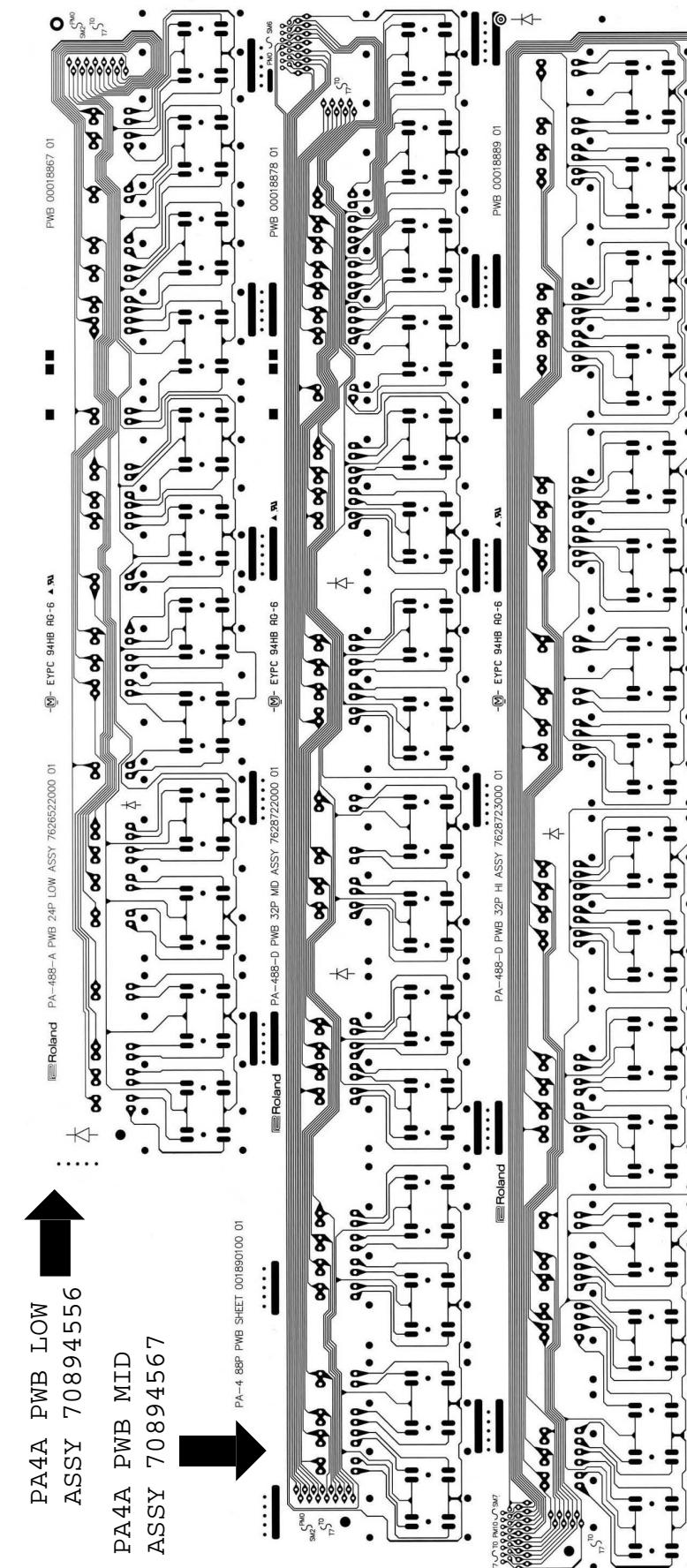


Fig.4

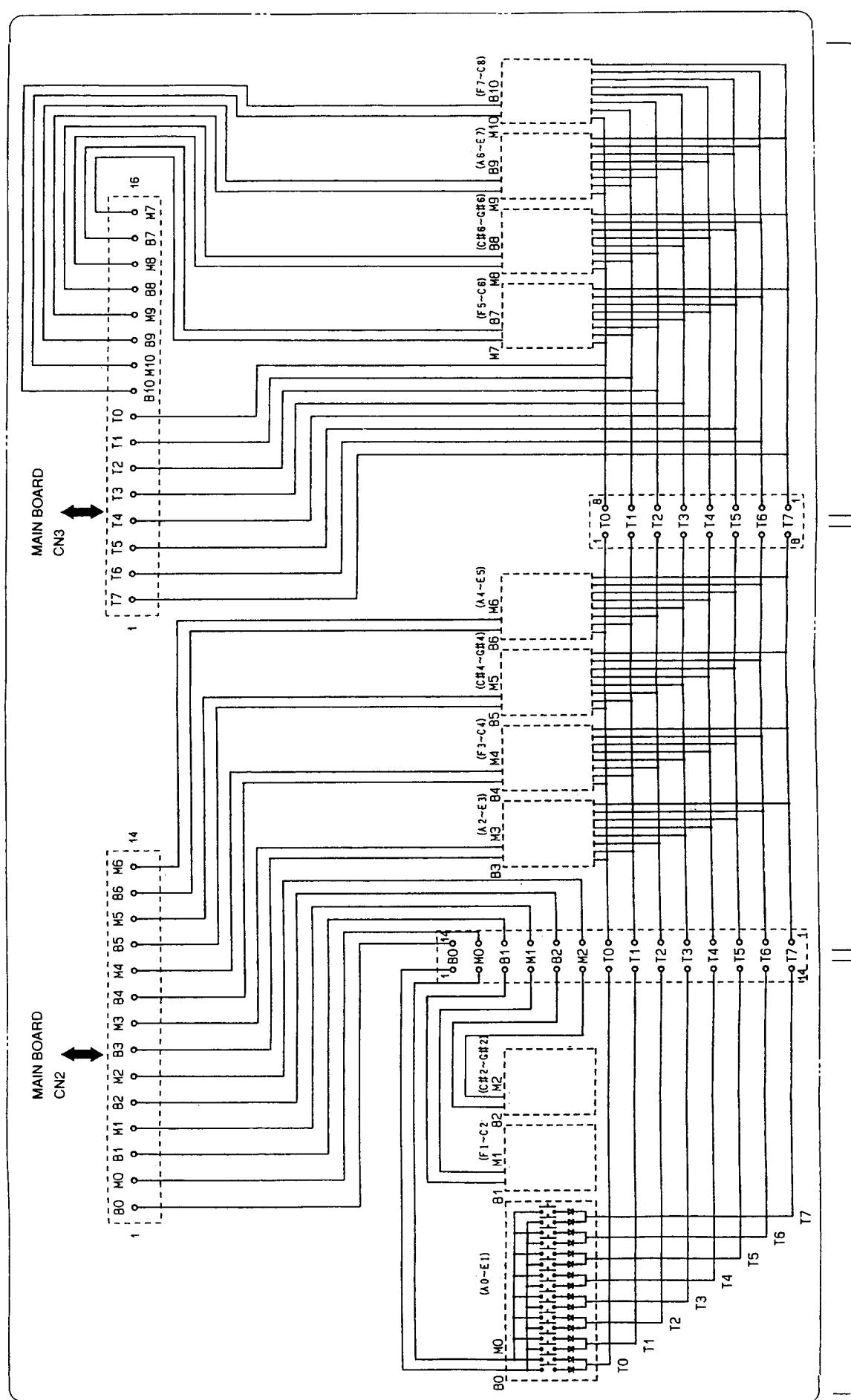
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

### A KEYBOARD PA-4A88-C2 CIRCUIT BOARD



PA4A PWB HI  
ASSY 70894578

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

**A KEYBOARD PA-4A88-C2 CIRCUIT DIAGRAM****TEST MODE****Required items**

- MIDI cable (1.5m or longer Part No.23485229 1.5m)
- Computer test cable for SOUND CANVAS SC-88 (Part No.17049906)
- Microphone
- Oscilloscope

**1. To enter the test mode**

Get into the FUNCTION MODE from pressing [Function] button after turning the power On. (Each LED may brink.)

Then press [Function] button while holding down the [Track 2] and [Play] buttons. 'JIG' is displayed and the piano shall automatically enter into the TEST MODE.

Press [Function] button to get into stage 2.

- \* To exit the Test Mode, turn the power Off.
  - \* To proceed on the next mode, press [Function] button. However, there are some mode that will move to the next item automatically.
- Please refer to the explanations written to the each mode.

**NOTE :** When there is a malfunction during the TEST MODE, switch the power On again.

**2. Display of DEVICE CHECK, ROM VERSION****\* DEVICE CHECK**

When enter into the TEST MODE, the DEVICE CHECK will be executed automatically. If there is no malfunction, ROM VERSION is displayed to the 7-SEG LED.

In the event of a malfunction, one of the following shall be displayed.

7-SEG LED	Failed DEVICE
E01	: Program ROM
E02	: Working DRAM
E03	: Wave ROM
E04	: DSP RAM

Press [Function] to go on the TEST MODE.

**\* BUILD NUMBER**

This numbers are displayed for factory purpose only, please ignore when you execute test mode.

NOTE : Basically, this mode will be bypassed and jump to the MODEL NAME mode. However, with early productions, the BUILD number will be displayed to the 7-SEG LED.

Press [Function] to go on the TEST MODE.

#### \* MODEL NAME

"335" shall be displayed to the 7-SEG LED.

Press [Function] to go on the TEST MODE.

#### 3. Buttons and LEDs Check

All of the LEDs on the panel shall illuminate.

NOTE: When you press [Function] button at the start it will move to the next mode and this mode will be bypassed. When you execute the check of Buttons and LEDs, do not press [Function] button first.

\* Press the following buttons. Confirm the sound output and the LED becomes non-illuminated.

[piano] [E.piano] [Harpsi] [Vibes] [Organ] [Strings] [Choir] [GS Tones] [Reverb] [Chorul] [Pianist] [Split] [Transpose] [Track R] [Track 1] [Track 2] [Play] [Rec] [Function]

\* Press the following button twice. Confirm the sound output and the LED alternately changes from "Orange" → "Green" → non-illuminated.

[Key Touch]

\* Press the following button twice. Confirm the sound output and the LED at the left side of the 7-SEG LED alternately changes from "Orange" → "Green" → non-illuminated.

[Metronome]

\* Press the following buttons. Confirm the sound output and related LEDs at the right side of the 7-SEG LED becomes non-illuminated.

[Song] [Beat] [Tempo]

\* Press the following button. Confirm the sound output and left two figures of the 7-SEG LED become non-illuminated.

[Value +]

\* Press the following button. Confirm the sound output and right one figure of the 7-SEG LED becomes non-illuminated.

[Value -]

When you finish this Buttons and LEDs check, it automatically moves to the next Test item.

In the other words, unless you perform all of the buttons and LEDs check, it cannot proceed on to the next mode.

#### 4. Effect Sound, Speaker and Panning Check

(When you want to proceed on to the next stage during this test, press [Function] button.)

When you get into this mode, 7-SEG LED displays "Pan".

Press following buttons and confirm the Effect sound and other settings.

BUTTON	PANNING	TONE	EFFECTS
[piano]	Center	Piano	Non
[E.piano]	Center	Piano	Chorus
[Harpsi]	Center	Piano	Reverb
[Vibes]	Center	Piano	Resonance
[Organ]	Left	440Hz Sine Wave	Non
[Strings]	Right	440Hz Square Wave	Non
[Choir]	Center	440Hz Sine Wave	Non

Press [Function] to go on the TEST MODE.

#### 5. Pedal Check

(When you want to proceed on to the next stage during this test, press [Function] button.)

When you get into this mode, 7-SEG LED displays .

Depress each [Soft], [Sostenuto] and [Damper] pedals one by one slowly. The output sound (Tone) should be changed related to the depressed depth of the pedal and also the value should appear on the 7-SEG LED. The value may change from 0 to 9 and at the full depressed position, a Metronome sound could be heard.

The correspondence between the display and the Pedals are as follows.

7-SEG LED display	Checked Pedal
3rd figure of the 7-SEG LED 	: Soft Pedal
2nd figure of the 7-SEG LED 	: Sostenuto Pedal
1st figure of the 7-SEG LED 	: Damper Pedal

When you finish checking and there is no malfunction with all of the three Pedals, it automatically moves to the next Test mode.

## 6. Serial Interface Check

When press [Function] during this Serial Interface Check, it will jump back to the beginning of the Test Mode (2. Device Check).

When you get into this mode, 7-SEG LED displays **[SEr]**.

### \* MIDI CHECK

Set the Computer Switch on the underside of the keyboard to "MIDI". The LED on the left side of the 7-SEG LED will be illuminated.

Connect MIDI In on the underside of the keyboard and MIDI Out on the rear panel. If there is no malfunction, the following is displayed on the 7-SEG LED.



Connect MIDI In and MIDI Out on the rear panel. If there is no malfunction, the following is displayed on the 7-SEG LED.



### \* COMPUTER I/F CHECK

To perform this test, a "Computer Test Cable for SOUND CANVAS SC-88" (#17049906) is required. Please order this cable from the local Roland Service Center if necessary.

#### 1) Set the Computer Switch on the underside of the keyboard to "Mac".

The LED on the right side of the 7-SEG LED will be illuminated.

Connect the Computer Test Cable to the Computer Jack on the underside of the keyboard. Connect the oscilloscope to a white terminal (Signal line) of Computer Test Cable and the GND to a black terminal (GND line). Check if the 1MHz square wave appears or not.

Turn the Computer Test Cable SW to On. If there is no malfunction, the following is displayed on the 7-SEG LED.



Turn the Computer Test Cable SW to Off. If there is no malfunction, the following is displayed on the 7-SEG LED.



#### 2) Set the Computer Switch on the underside of the keyboard to "PC1".

The Beat LED on the right side of the 7-SEG LED will be illuminated.

Connect the Computer Test Cable to the Computer Jack on the underside of the keyboard and turn the Computer Test Cable SW to On. If there is no malfunction, the following is displayed on the 7-SEG LED.



Turn the Computer Test Cable SW to Off. If there is no malfunction, the following is displayed on the 7-SEG LED.



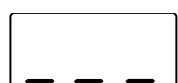
#### 3) Set the Computer Switch on the underside of the keyboard to "PC2".

The Song LED on the right side of the 7-SEG LED will be illuminated.

Connect the Computer Test Cable to the Computer Jack on the underside of the keyboard and turn the Computer Test Cable SW to On. If there is no malfunction, the following is displayed on the 7-SEG LED.



Turn the Computer Test Cable SW to Off. If there is no malfunction, the following is displayed on the 7-SEG LED.



It will jump to the beginning of the Test Mode (2. Device Check) by pressing [Function] button.

## 7. To exit the Test Mode

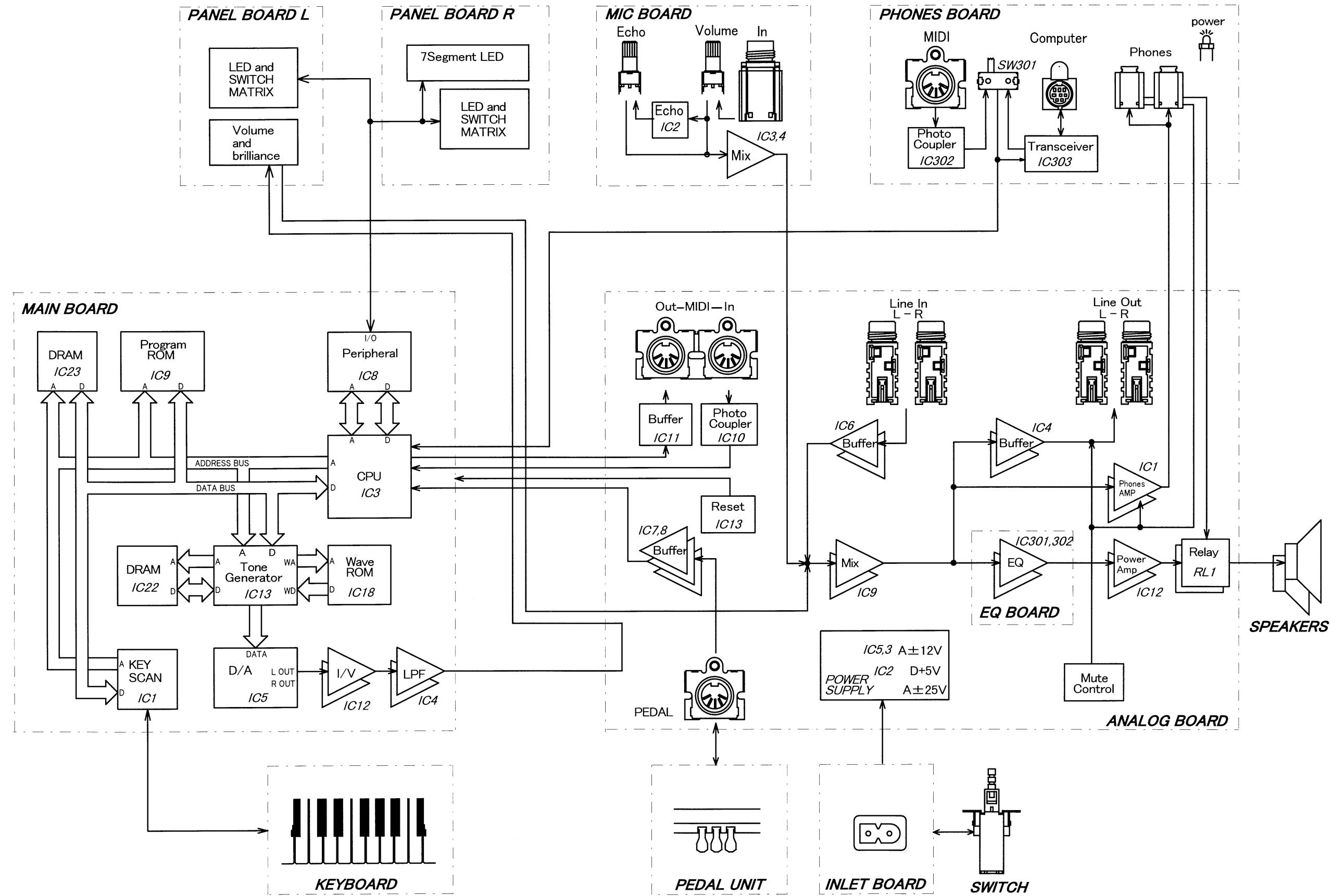
To exit the Test Mode, turn the power Off.

## 8. Microphone Check

After executing the Test Mode, turn the power On again and connect a Microphone to the Mic In Jack on the underside of the keyboard. Confirm if it functions correctly or not by turning the Echo Knob and Volume Knob near the Mic In Jack.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

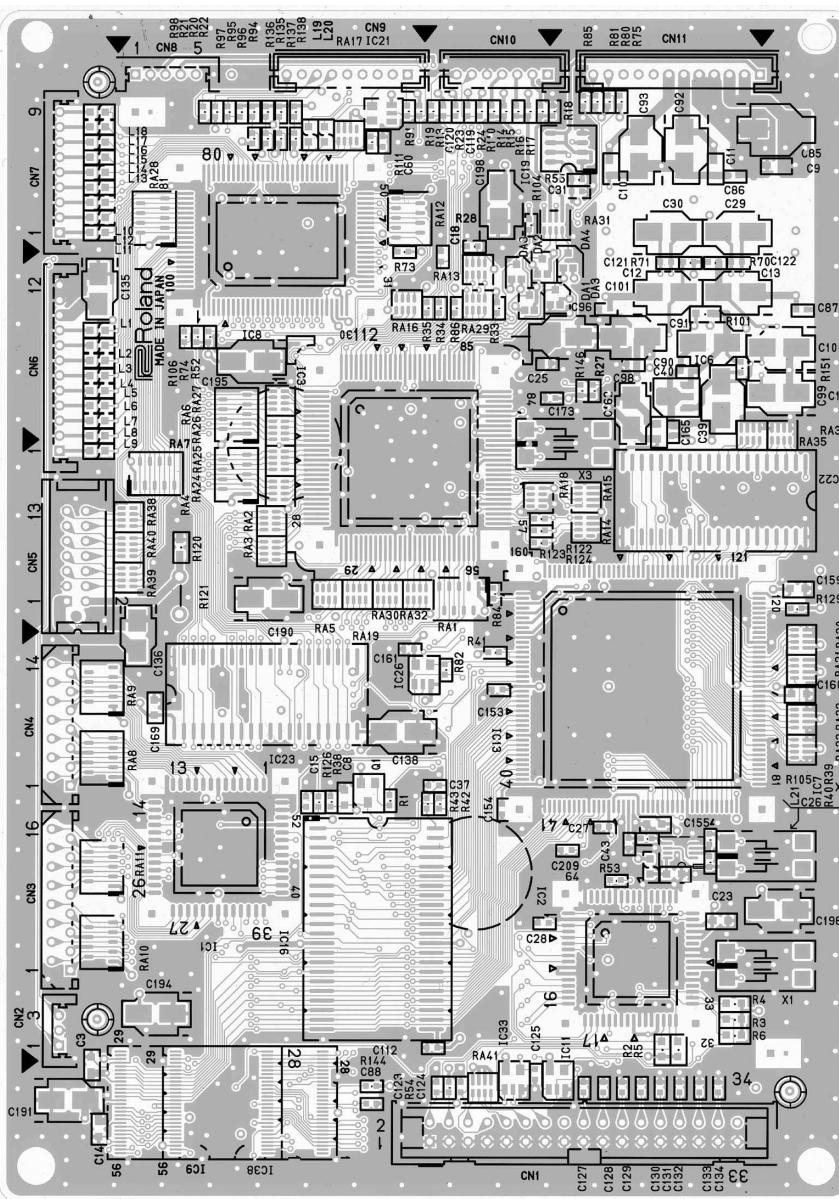
## A BLOCK DIAGRAM



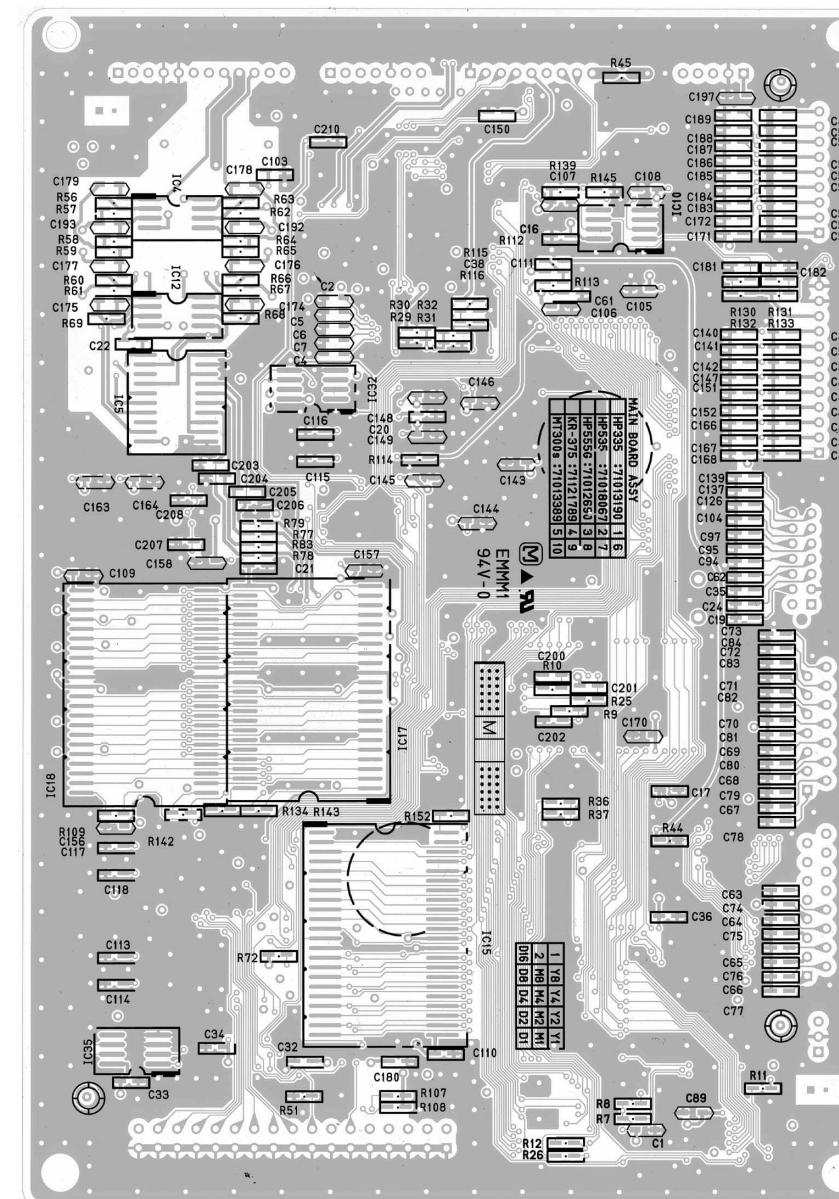
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT BOARD (MAIN)

71013190 MAIN BOARD ASSY



View from components side.

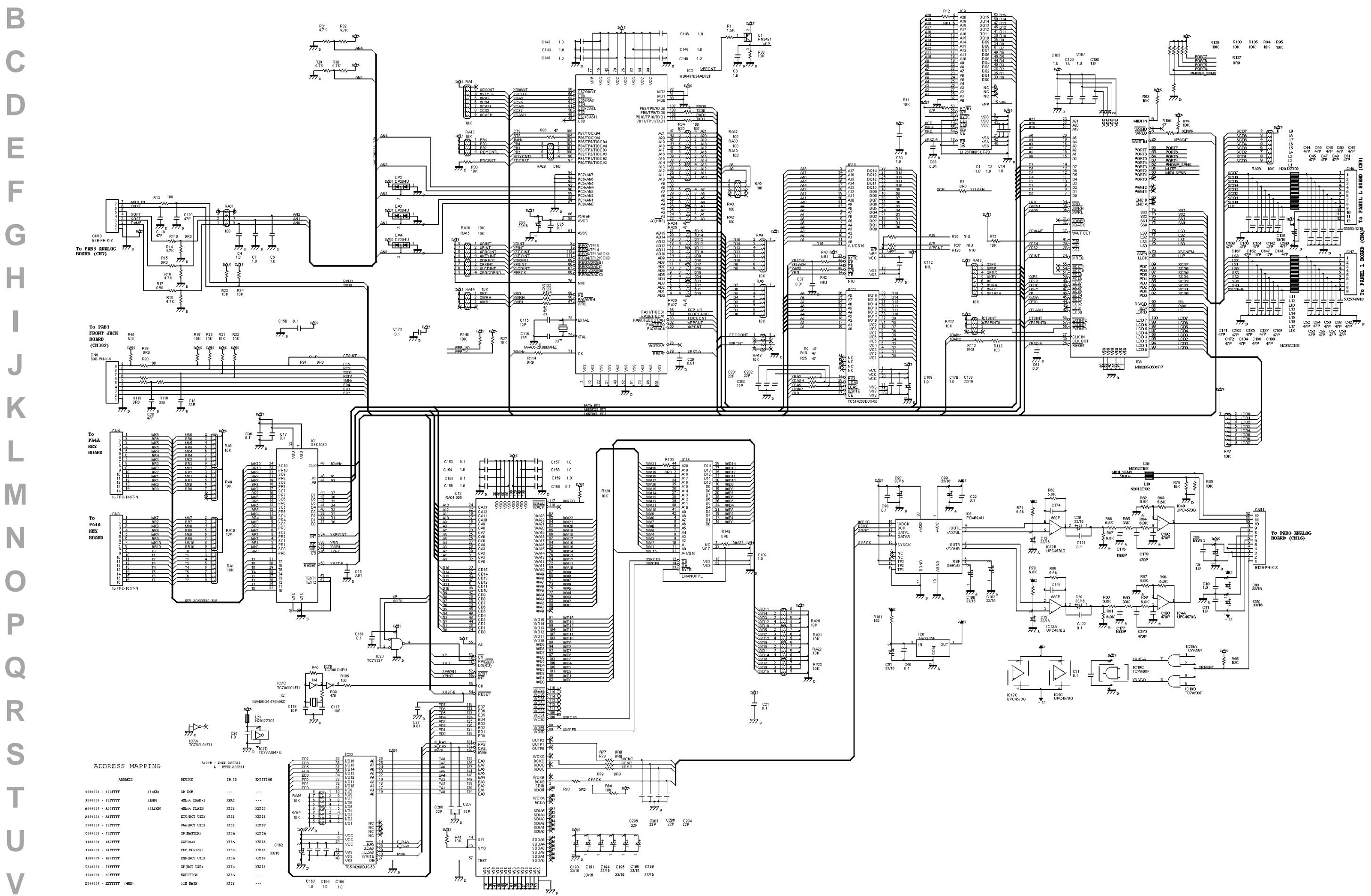


View from foil side.

B  
C  
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I  
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K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

# A CIRCUIT DIAGRAM (MAIN)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT BOARD (PANEL L)

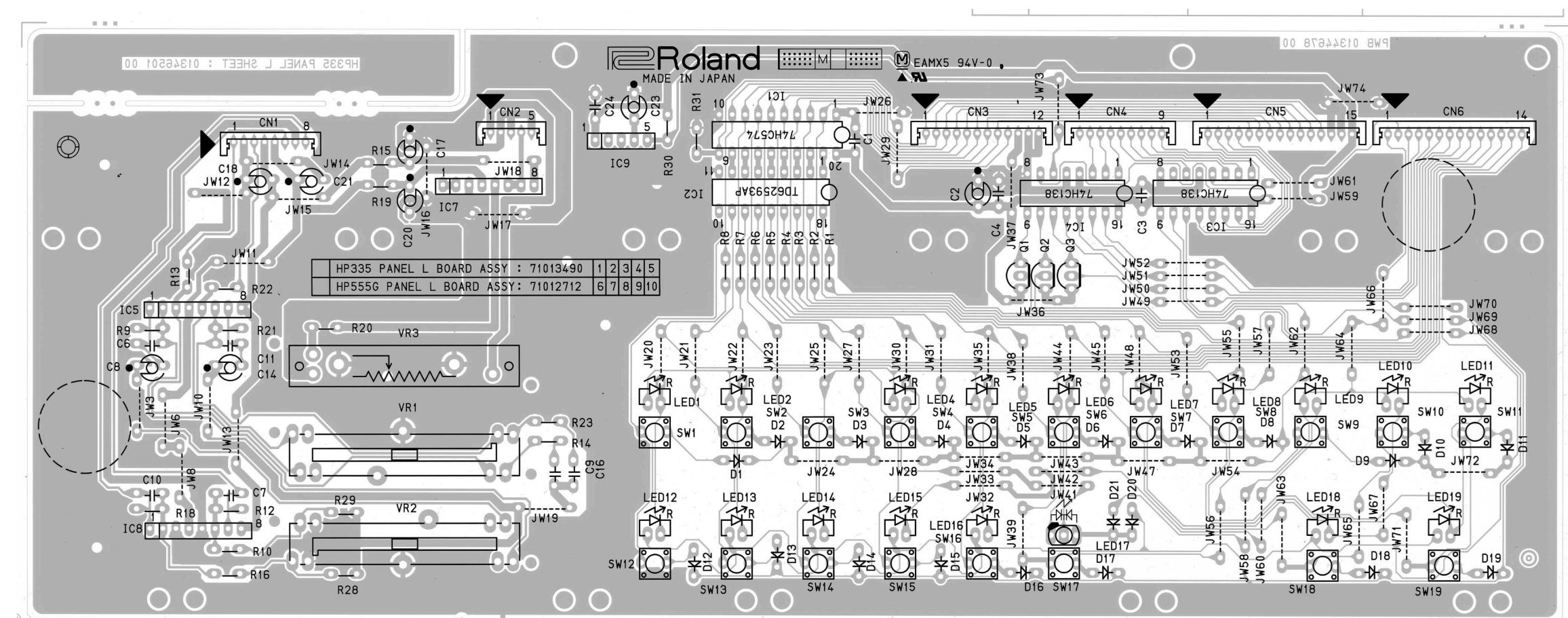
71013490 PANEL L BOARD ASSY

B  
C  
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K  
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Q  
R  
S  
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U  
V

NOTE

PANEL L BOARD ASSY includes the following parts.

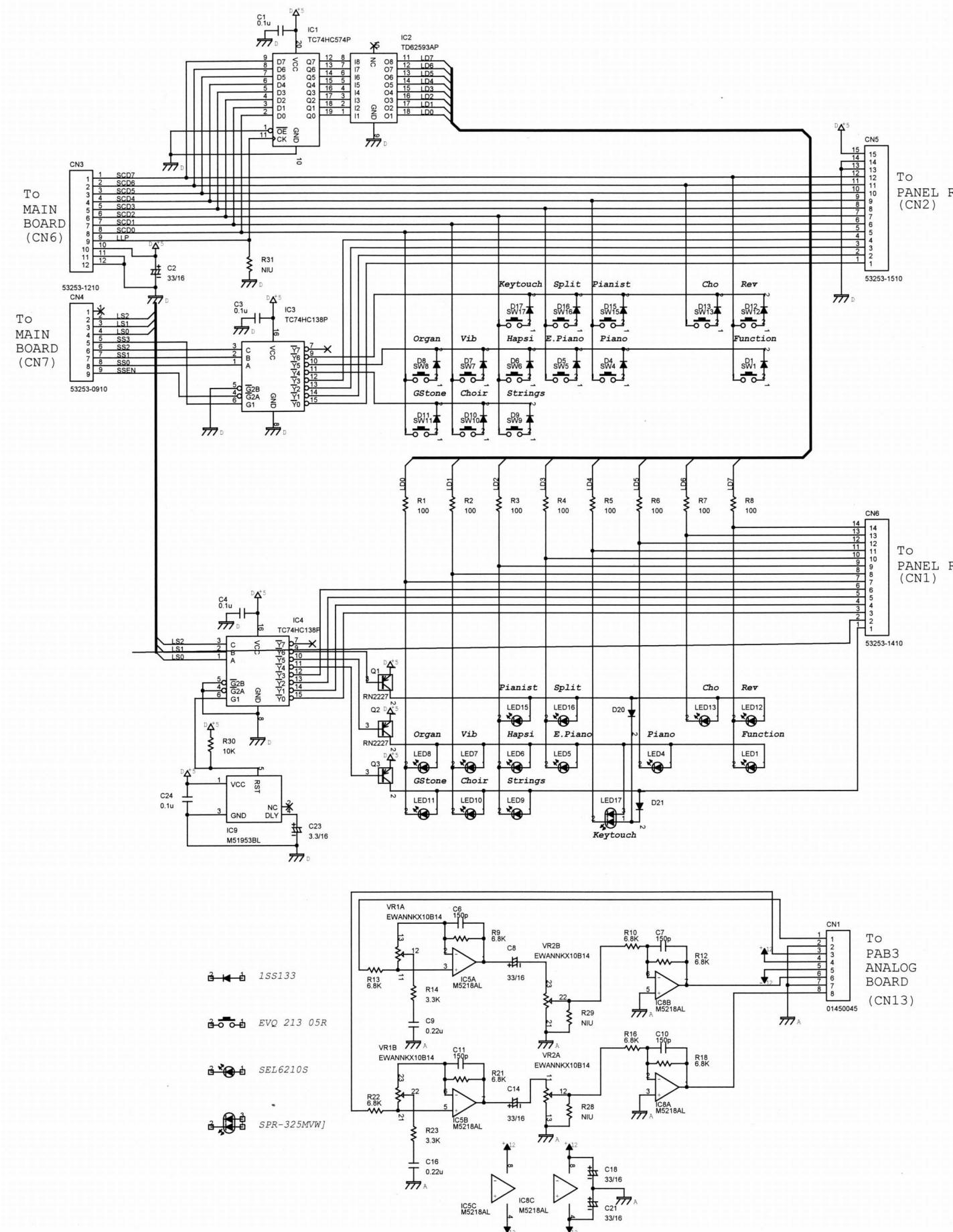
01450023	WIRING 9X350-P2.0-51065-51015-F	on PLB
01450034	WIRING 12X400-P2.0-51065-51015-F	on PLB
01450045	WIRING 8X400-P2.0-51065-51015-F	on PLB



View from components side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT DIAGRAM (PANEL L)



B  
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I  
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O  
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R  
S  
T  
U  
V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT BOARD (PANEL R)

71011834 PANEL R BOARD ASSY

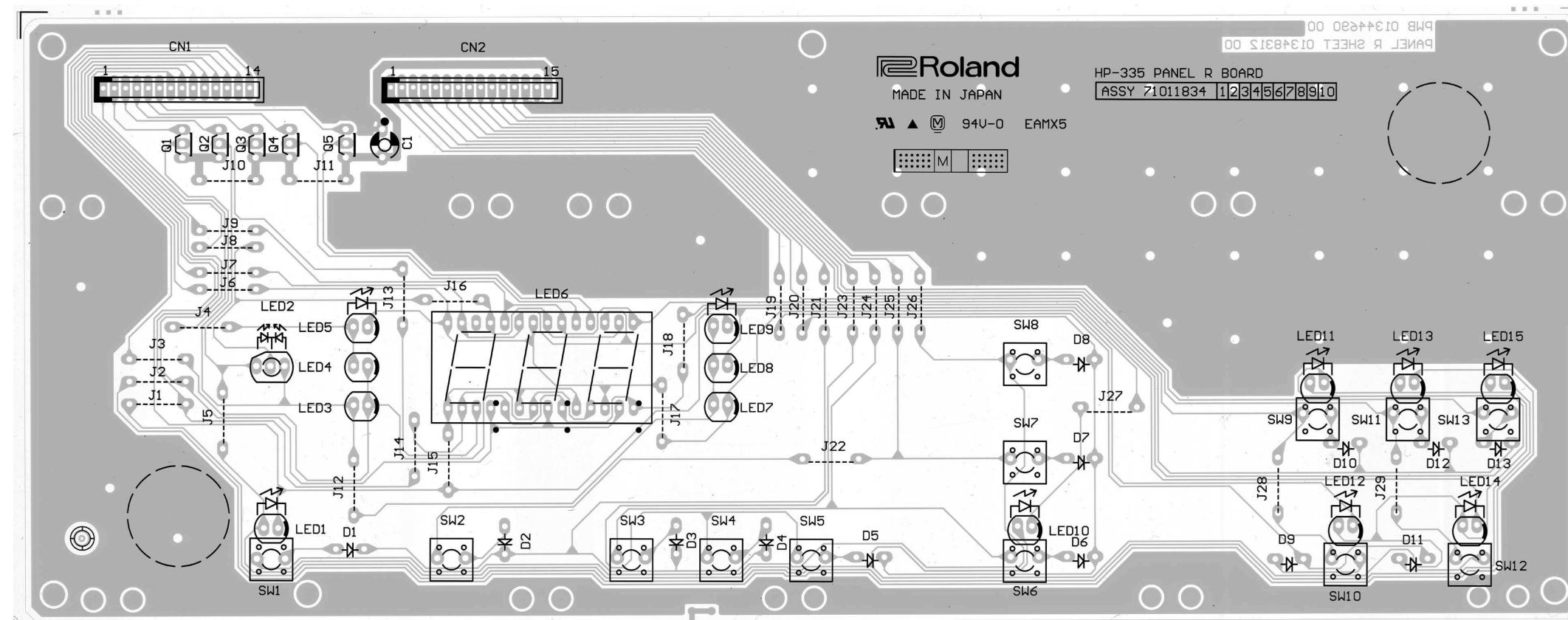
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
V

**NOTE**

PANEL R BOARD ASSY includes the following parts.

12169390	LED SPACER LH-36-4	on PRB
01450001	WIRING 14X120-P2.0-51065-51015-F	on PRB
01450012	WIRING 15X180-P2.0-51065-51015-F	on PRB

on PRB  
on PRB  
on PRB

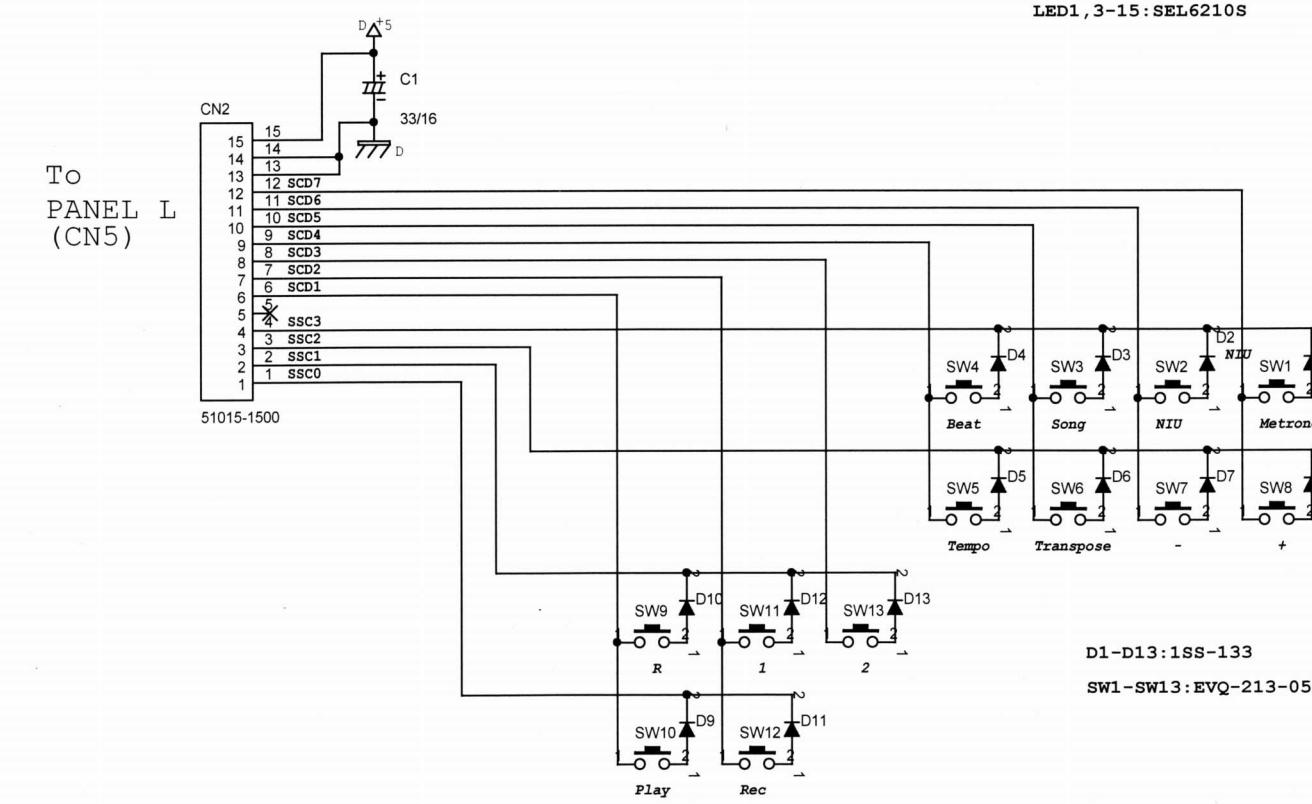
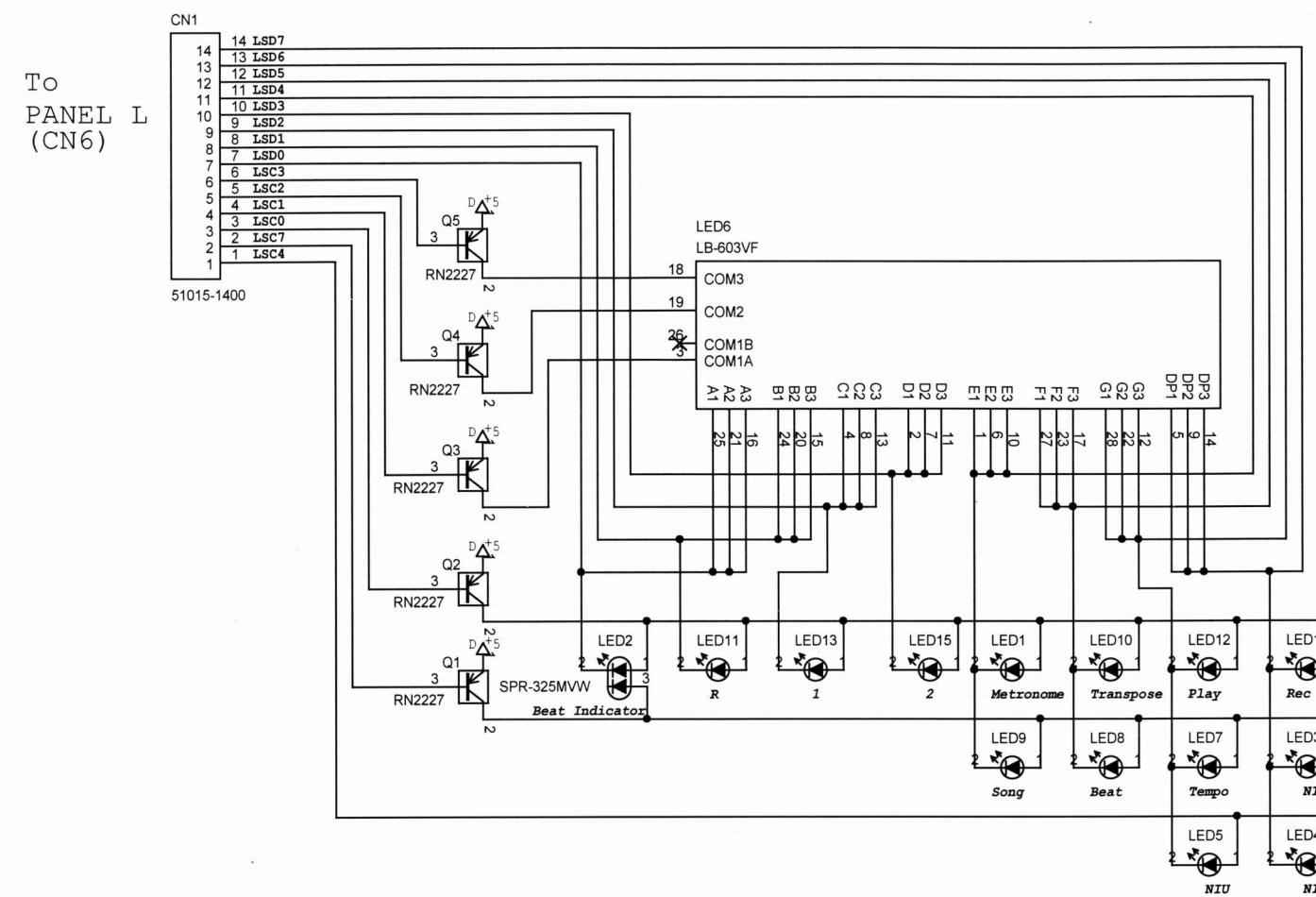


View from components side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT DIAGRAM (PANEL R)

B  
C  
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M  
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O  
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Q  
R  
S  
T  
U  
V



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT BOARD (FRONT JACK, ANALOG ,INLET)

B

C

D

E

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G

H

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J

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L

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N

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P

Q

R

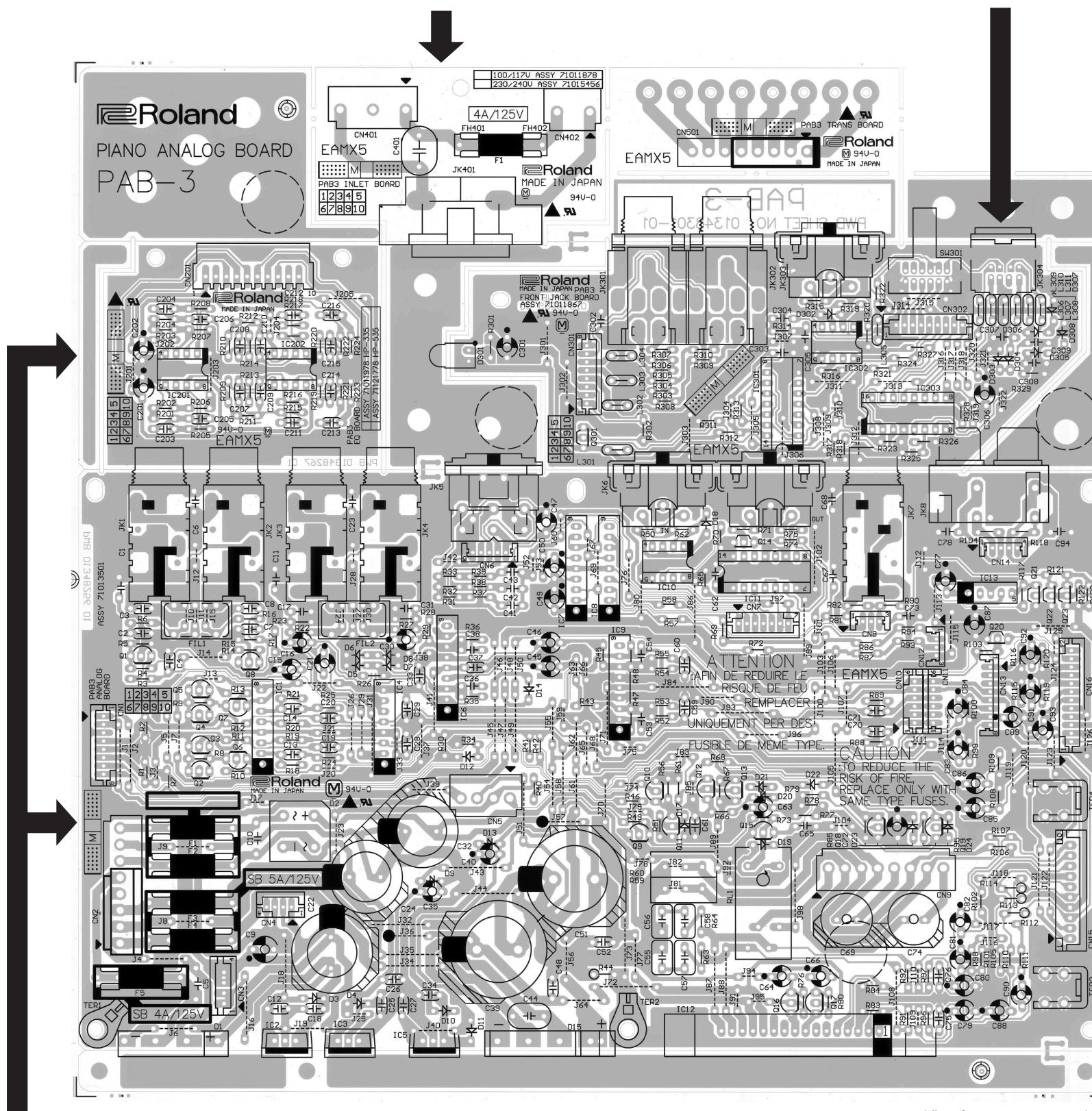
S

T

U

V

71011878 PAB3 INLET 100/117V



71011856 PAB3 ANALOG PHANTOM

### NOTE

PAB3 ANALOG PHANTOM includes the following PWBS.

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\*\*\*\*\*

PAB3 EQ BOARD  
PAB3 ANALOG BOARD

NOTE:PAB3 ANALOG BOARD includes the following parts.

22195975	TR HOLDER
22195973	POWER AMP HOLDER
01349990	WIRING W4
01349978	7x250-P2.0-PH-SAN-F
01349912	12x130-P2.0-PH-SAN-F
01346423	HEATSINK
01346412	PAB HOLDER

### NOTE

PAB3 FRONT JACK BOARD includes the following parts.

01344545 JACK HOLDER

### NOTE

PAB3 INLET 100/117V includes the following parts.

23425740	AC INLET INL-8 10A/125V 2P PO
12559444	FUSE 5x20 SB 4 4A/125V
00129367	INLET HOLDER

Replacemant INLET BOARD ""PAB3 INLET ASSY"" is for 100/117V version exclusive use.

When using ""PAB3 INLET ASSY"" for 230/240V version, be sure to make the following modifications.

1. INLET BOARD FOR 100/117V version differs from 230V version in FUSE system. Replace fuse(F1 on INLET BOARD) to specific one.(#12559550 FUSE 5x20 S506 1.6A T1.6AL250V for 230V version)See TABLE A.
2. For safety standards, place fuse seal (#40013712 FUSE SEAL T1.6AL250V #407) at the proper place of the INLET BOARD.

The location of fuse seal is over the following printing (see fig A) of the PWB. When necessary, please order fuse seal separtery from INLET BOARD.

TABLE A

100V/117V	FUSE 5x20 SB 4 4A/125V
230V/240V	FUSE 5X20 S506 1.6A T1.6AL250V

Fig.A 3.15A/125V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT DIAGRAM (FRONT JACK, ANALOG, INLET)

B  
C  
D

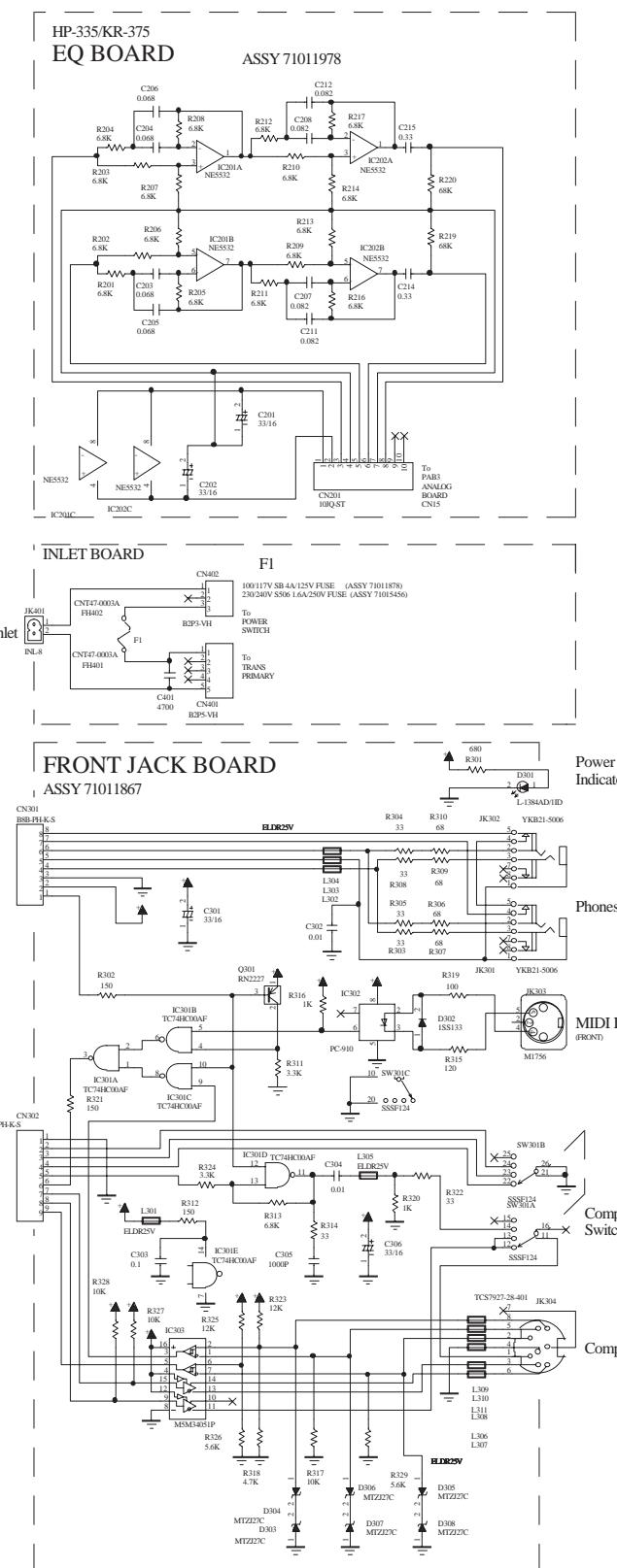
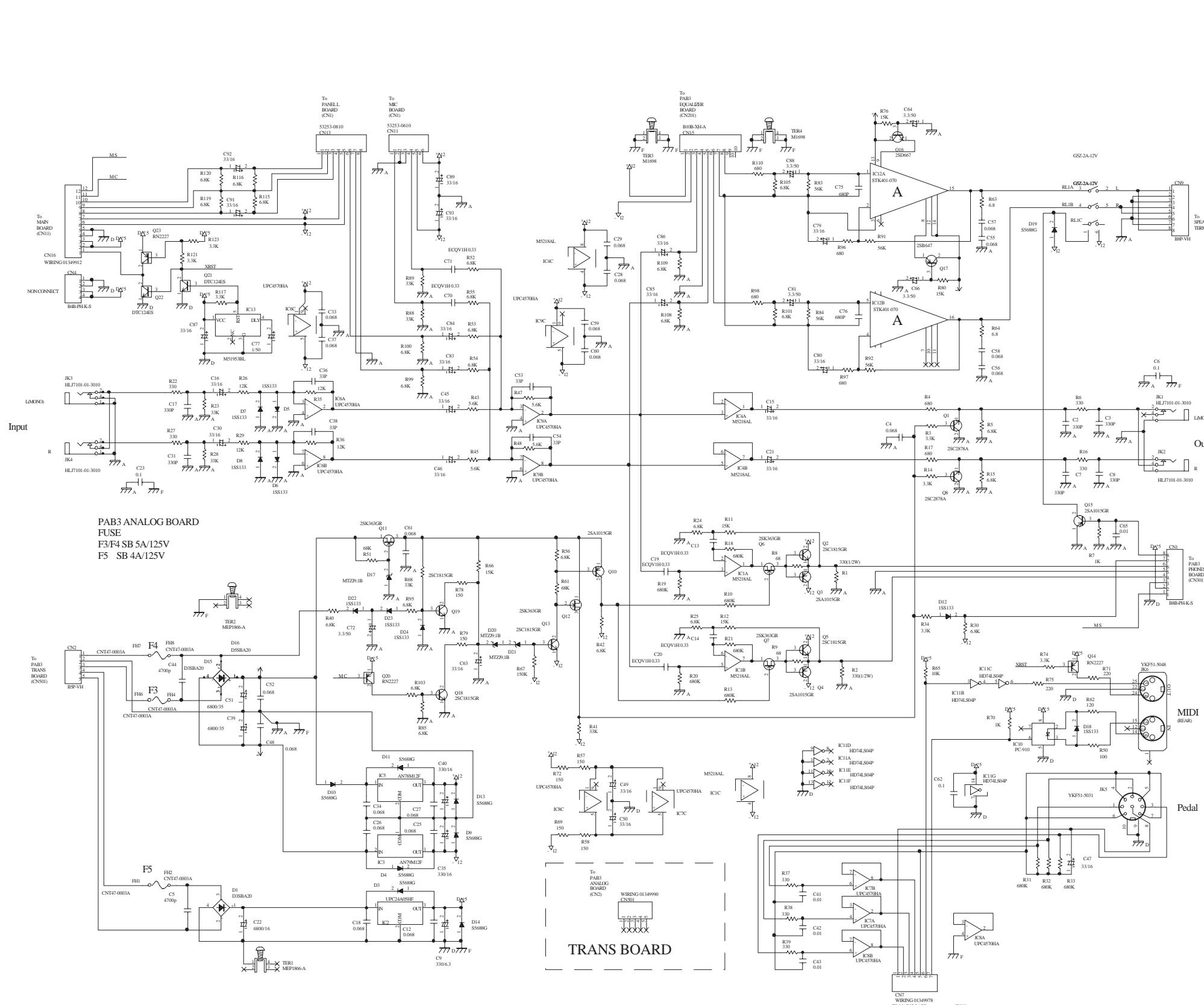
E  
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H

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V

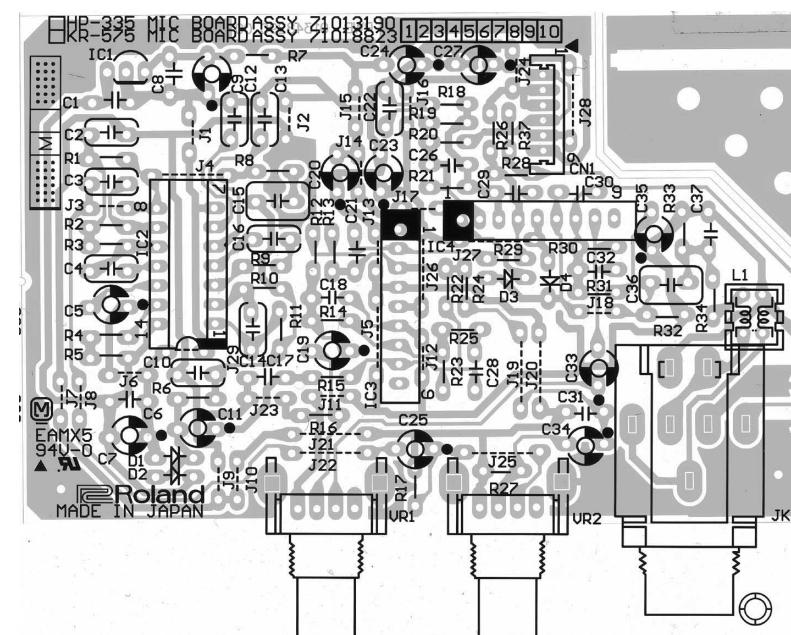


PIANO ANALOG BOARD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

## A CIRCUIT BOARD (MIC)

71011901 MIC BOARD ASSY



View from components side.

**NOTE**

MIC BOARD ASSY includes the following parts.

# 01344489 MIC HOLDER

B  
C  
D  
E  
F  
G  
H

## CIRCUIT DIAGRAM (MIC)

